

**DETAILED SPECIFICATIONS AND CONTRACT DOCUMENTS  
CONTRACT 320 – SANITARY SEWER  
PIPE CLEANING AND INSPECTIONS  
CITY OF TIPTONVILLE  
LAKE COUNTY, TN**

MAY 2022

Cliff Berry, Mayor  
Fran Hearn, City Clerk / City Recorder



May 9, 2022



Joel B. Spaulding & Company, inc.

CONSULTING ENGINEERS

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# DETAILED SPECIFICATIONS AND CONTRACT DOCUMENTS

## CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS

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**ADVERTISEMENT FOR BIDS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

Project No. 320  
City of Tiptonville, TN (“Owner”)

Separate sealed bids for **Contract 320 – Sanitary Sewer Pipe Cleaning and Inspections** will be received by the **City of Tiptonville** at **Tiptonville City Hall, 130 S. Court St., Tiptonville, TN 38079** until 1:30 o'clock P.M., C.S.T., Thursday, June 9, 2022, and then at said office publicly opened and read aloud.

The Information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Forms of Bid Bond, Performance and Payment Bond, and other contract documents may be examined in PDF form via download by requesting access via email to [bruce@joelbspaulding.com](mailto:bruce@joelbspaulding.com). Bid sets will be available digitally only; no hard copies will be issued, & all bidders must obtain official digital copies of the Bidding Documents from Joel B. Spaulding & Company, Inc., 3322 West End Ave., Ste. 106, Nashville, TN 37203, 615-255-7766. Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents obtained from sources other than the Engineer and will not accept bids from parties failing to obtain official digital bid sets from the Engineer.

The owner reserves the right to waive any informalities or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount, form and subject to the conditions provided in the Information for Bidders.

All bidders must be licensed General Contractors as required by the Contractor's Licensing Act of 1994 of the General Assembly of the State of Tennessee and qualified for the type of construction being bid upon.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract, Section 3, Segregated Facility, Section 109 and E.O. 11246.

No bidder may withdraw his bid within 60 days after the actual date of the opening thereof.

Cliff Berry, Mayor

May 9, 2022



**INFORMATION FOR BIDDERS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

1. Receipt and Opening of Bids

The **City of Tiptonville** (herein called the “Owner”), invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Owner at **Tiptonville City Hall, 130 S. Court St., Tiptonville, TN 38079** until 1:30 o'clock P.M., C.S.T, Thursday, June 9, 2022, and then at said office publicly opened and read aloud. The envelopes containing the bids must be sealed, addressed to the **City of Tiptonville** at **130 S. Court St., Tiptonville, TN 38079** and designated as bid for **Contract 320 – Sanitary Sewer Pipe Cleaning and Inspections**.

The Owner may consider informal any bid not prepared and submitted in accordance with the provisions hereof and may waive any informalities or reject any and all bids. Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered. No bidder may withdraw a bid within 60 days after the actual date of the opening thereof.

2. Preparation of Bid

Each bid must be submitted on the prescribed form and accompanied by Certification of Bidder Regarding Equal Employment Opportunity, Acknowledgment Regarding Bidder SAM Registration, Certification of Bidder Regarding Section 3 and Segregated Facilities, and Drug-Free Workplace Affidavit. All blank spaces for bid prices must be filled in, in ink or typewritten, in both words and figures, and the foregoing Certifications must be fully completed and executed when submitted.

Each bid must be submitted in a sealed envelope bearing on the outside the name of the bidder, his/her address, the name of the project for which the bid is submitted, license number, expiration date thereof, and license classification of the contractors applying to bid for the prime contract, and for the electrical, plumbing, heating, ventilation, and air conditioning contracts, and all other information required by State law.

All bidders must be licensed General Contractors as required by the Contractor's Licensing Act of 1994 of the General Assembly of the State of Tennessee and qualified for the type of construction being bid upon. Each bidder shall write on the outside of the envelope containing its bid: 1) its Contractor's license number; 2) that part of the classification applying to the bid. If this is not done, the bid will not be opened.

3. Subcontracts

The bidder is specifically advised that any person, for, or other party to whom it is proposed to award a subcontract under this contract:

- a. Must be acceptable to the owner; and
- b. Must submit Certification by Proposed Subcontractor Regarding Equal Employment Opportunity, and Certification of Proposed Subcontractor Regarding Section 3 and Segregated Facilities. Approval of the proposed



**INFORMATION FOR BIDDERS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

subcontract award cannot be given by the owner unless and until the proposed subcontractor has submitted the Certifications and/or other evidence showing that it has fully complied with any reporting requirements to which it is or was subject.

Although the bidder is not required to attach such Certifications by proposed subcontractors to his/her bid, the bidder is here advised of this requirement so that appropriate action can be taken to prevent subsequent delay in subcontract awards.

**4. Bid Modification**

Any bidder may modify his/her bid by any transmission method judged practical by the Engineer within 30 minutes prior to the scheduled closing time for receipt of bids, provided that Bidder has notified Engineer by phone that the modification is forthcoming via the transmission method designated by the Engineer, and provided further, the Owner is satisfied that a written confirmation of the modification over the original signature of the bidder was mailed prior to the closing time. "Practical" transmission methods may include regular or overnight mail, telegram, facsimile, or e-mail, as deemed by the Engineer to be most readily accessible transmission method available to the Owner and Engineer at the bid opening location and prior to the bid opening time.

The communication should not reveal the bid price but should provide the addition or subtraction or other modification so that the final prices or terms will not be known by the Owner and Engineer until the sealed bid is opened. Modification must be received within thirty minutes of the closing time, or no consideration will be given to the modification.

**5. Method of Bidding**

The Owner invites the following bid(s): See Bidder's Proposal.

**6. Qualification of Bidder**

The Owner may make such investigations as s/he deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any bid if the evidence submitted by, or investigation of, such bidder fails to satisfy the owner that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein. Conditional bids will not be accepted.

**7. Bid Security**

Each bid must be accompanied by cash, certified check of the bidder, or a bid bond prepared on the form of bid bond attached thereto, duly executed by the bidder as principal and having as surety thereon a surety company approved by the Owner, in the amount of 5% of the bid.



**INFORMATION FOR BIDDERS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

Such cash, checks or bid bonds will be returned to all except the three lowest bidders within three days after the opening of bids, and the remaining cash, checks or bid bonds will be returned promptly after the Owner and the accepted bidder have executed the contract, or, if no award has been made within 60 days after the date of the opening of bids, upon demand of the bidder at any time thereafter, so long as he/she has not been notified of the acceptance of his/her bid.

8. Liquidated Damages for Failure to Enter into Contract

The successful bidder, upon his/her failure to refusal to execute and deliver the contract and bonds required within 10 days after she/he has received notice of the acceptance of his/her bid, shall forfeit to the Owner, as liquidated damages for such failure or refusal, the security deposited with his/her bid.

9. Time of Completion and Liquidated Damages

Bidder must agree to commence work on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 90 consecutive calendar days thereafter. Bidder must agree also to pay as liquidated damages, the sum of **\$200.00** for each consecutive calendar day thereafter as hereinafter provided in the Supplemental General Conditions.

10. Condition of Work

Each bidder must inform him/herself fully of the conditions relating to the construction of the project and the employment of labor thereof. Failure to do so will not relieve a successful bidder of his/her obligation to furnish all material and labor necessary to carry out the provisions of his/her contract. Insofar as possible, the contractor, in carrying out the work, must employ such methods as will not cause any interruption of or interference with the work of any other contractor.

11. Addenda and Interpretations

No interpretation of the meaning of the plans, specifications or other pre-bid documents will be made to any bidder orally.

Every request for such interpretation should be in writing addressed to **Joel B. Spaulding & Company, Inc.** at **3322 West End Ave., Ste. 106, Nashville, TN 37203** and to be given consideration must be received at least five days prior to the date fixed for the opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the specifications which, if issued, will be mailed by certified mail with return receipt requested or emailed to all prospective bidders (at the respective addresses furnished for such purposes), not later than two days prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his/her bid as submitted. All addenda so issued shall become part of the contract documents.



**INFORMATION FOR BIDDERS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

12. Security for Faithful Performance

Simultaneously with his/her delivery of the executed contract, the Contractor shall furnish a surety bond or bonds as security for faithful performance of this contract and for the payment of all persons performing labor on the project under this contract and furnishing materials in connection with this contract, as specified in the General Conditions included herein. The surety on such bond or bonds shall be a duly authorized surety company satisfactory to the Owner.

13. Power of Attorney

Attorneys-in-fact who sign bid bonds or contract bonds must file with each bond a certified and effectively dated copy of their power of attorney.

14. Notice of Special Conditions

Attention is particularly called to those parts of the contract documents and specifications which deal with the following:

- a. Inspection and testing of materials.
- b. Insurance requirements.
- c. Wage rates.
- d. Stated allowances.

15. Laws and Regulations

The bidder's attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the project shall apply to the contract throughout, and they will be deemed to be included in the contract the same as though herein written out in full.

16. Method of Award - Lowest Qualified Bidder

After receiving bids and determining the amount of funds estimated by the OWNER as available to finance the contract, the OWNER will award the contract to the lowest responsible bidder. The lowest responsible bidder will be determined upon the basis of the lowest base bid or lowest base bid combined with alternates (additive or deductive). If the contract is to be awarded based on the lowest base bid with alternates, alternates will be accepted in the numerical order in which they are listed in the Form of Bid.

17. Obligation of Bidder

At the time of the opening of bids each bidder will be presumed to have inspected the site and to have read and to be thoroughly familiar with the plans and contract documents (including all addenda). The failure or omission of any bidder to examine any form,



**INFORMATION FOR BIDDERS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

instrument or document shall in no way relieve any bidder from any obligation in respect of his/her bid.

18. Safety Standards and Accident Prevention

With respect to all work performed under this contract, the Contractor shall:

- a. Comply with the safety standards provisions of applicable laws, building and construction codes and the "Manual of Accident Prevention in Construction" published by the Associated General Contractors of America, the requirements of the Occupational Safety and Health Act of 1970 (Public Law 91-596), and the requirements of Title 29 of the Code of Federal Regulations, Section 1518 as published in the "Federal Register", Volume 36, No. 75, Saturday, April 17, 1971.
- b. Exercise every precaution at all times for the prevention of accidents and the protection of persons (including employees) and property.
- c. Maintain at his/her office or other well-known place at the job site, all articles necessary for giving first aid to the injured and shall make standing arrangements for the immediate removal to a hospital or a doctor's care of persons (including employees), who may be injured on the job site. In no case shall employees be permitted to work at a job site before the employer has made a standing arrangement for removal of injured persons to a hospital or a doctor's care.



**BID BOND**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned, \_\_\_\_\_

\_\_\_\_\_  
as Principal, and

\_\_\_\_\_  
Surety, are hereby held and firmly bound unto

\_\_\_\_\_ as owner in the penal sum of

\_\_\_\_\_ for the payment of which,  
well and truly to be made, we hereby jointly and severally bind ourselves, our heirs,  
executors, administrators, successors and assigns.

Signed, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

The condition of the above obligation is such that whereas the Principal has submitted to

\_\_\_\_\_ a certain Bid,  
attached hereto and hereby made a part hereof to enter into a contract in writing for the

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOW, THEREFORE,

- (a) If said Bid shall be rejected, or in the alternate.
- (b) If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with said Bid) and shall furnish a bond for his faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and effect, it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The surety for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.



**BID BOND**

**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCTIONS**

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hand and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

----- (L.S.)  
Principal

-----  
Surety

SEAL

By: -----



**BID FOR UNIT PRICE CONTRACTS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCTIONS**

Place:           Tiptonville, TN  
Date:  
Project No.:   C-320

Proposal of \_\_\_\_\_ (hereinafter called "Bidder")<sup>1</sup> a corporation, organized and existing under the laws of the State of \_\_\_\_\_, partnership, or an individual doing business as \_\_\_\_\_.

To the **City of Tiptonville** (hereinafter called "Owner")

Gentlemen:

The Bidder, in compliance with your invitation for bids for the construction of a Sanitary Sewer Pipe Cleaning and Inspections project (Contract 320), having examined the plans and specifications with related documents and the site of the proposed work, and being familiar with all of the conditions surrounding the construction of the proposed project including the availability of materials and labor, hereby proposes to furnish all labor, materials, and supplies, and to construct the project in accordance with the contract documents, within the time set forth therein, and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the contract documents, of which this proposal is a part.

Bidder hereby agrees to commence work under this contract on or before a date to be specified in written "Notice to Proceed" of the Owner and to fully complete the project within 90 consecutive calendar days thereafter as stipulated in the specifications. Bidder further agrees to pay as liquidated damages the sum of **\$200.00** for each consecutive calendar day thereafter as hereinafter provided in Paragraph 3.c. of the Supplemental General Conditions.

Bidder acknowledges receipt of the following addendum:

\_\_\_\_\_

Bidder agrees to perform all the **Contract 320 – Sanitary Sewer Pipe Cleaning and Inspections** work described in the specifications and shown on the plans, for the following unit prices:

**See Bidder's Proposal.**

The unit prices shall include all labor, materials, bailing, shoring, removal, overhead, profit, insurance, etc., to cover the finished work of the several kinds called for.

Bidder understands that the Owner reserves the right to reject any or all bids and to waive any informalities in the bidding.

<sup>1</sup>           Insert corporation, partnership or individual as applicable.  
Bid for Unit Price Contracts



**BID FOR UNIT PRICE CONTRACTS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

The bidder agrees that this bid shall be good and may not be withdrawn for a period of 60 days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, bidder will execute the formal contract attached within 10 days and deliver a Surety Bond or Bonds as required by Article 5 of the General Conditions. The bid security attached in the sum of

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(\$\_\_\_\_\_) is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted:

By: \_\_\_\_\_  
(Title)

(SEAL – if bid is by a corporation)



## BIDDER'S PROPOSAL

### CONTRACT 320 - SANITARY SEWER PIPE CLEANING AND INSPECTIONS

Item	Quantity	Unit	Description	Unit Price	Total Price
1	35,505	L.F.	Complete CCTV Inspection Documenting the Location of the Designated Previously Unlocated Manhole and Identifying the Nature and Location of All Defects Contributing to Infiltration and Inflow Using NASSCO PACP Defect Codes, Including All Deliverables, as Per NASSCO PACP Specifications		
2	5,000	L.F.	Additional for Light Cleaning Where Authorized by Engineer, Including CCTV Reinspection		
3	1,500	L.F.	Additional for Heavy Cleaning Where Authorized by Engineer, Including CCTV Reinspection		
4	5	Each	Root Cut (Medium), Where Authorized by Engineer, Including CCTV Reinspection		
5	5	Each	Root Cut (Ball), Where Authorized by Engineer, Including CCTV Reinspection		
6	5	Each	Deposit Cut, Where Authorized by Engineer, Including CCTV Reinspection		
7	5	Each	Lateral Cut, Where Authorized by Engineer, Including CCTV Reinspection		
8	7	Each	FOR EXPOSED MANHOLES, OR MANHOLES LOCATED & FOUND TO BE CURRENTLY UNDER LESS THAN 1/2" OF PAVEMENT, OR UNDER SOIL OR GRAVEL: - Locate and Expose MH as Necessary to Remove Cover - Clean MH and Perform NASSCO MACP Level 2 Assessment, Use Zoom Camera to Investigate Intersecting Pipes - Replace Existing Cover		



Item	Quantity	Unit	Description	Unit Price	Total Price
9	18	Each	<p>FOR PREVIOUSLY UNLOCATED MANHOLES LOCATED VIA TV INSPECTION AND FOUND TO BE UNDER MORE THAN 1/2" OF PAVEMENT:</p> <ul style="list-style-type: none"> <li>- Chip Out Pavement to Expose the O.D. of the Cast Ring, Remove All Pavement from Cover</li> <li>- Clean MH and Perform NASSCO MACP Level 2 Assessment, Use Zoom Camera to Investigate Intersecting Pipes</li> <li>- Measure Exist. Ring and Cover as Required by Riser Vendor</li> <li>- Install "Throw and Go" Asphalt Patch</li> <li>- Provide Riser Ring, Remove Asphalt Patch, Install Riser Ring, Place Existing Cover Back on MH</li> <li>- Patch Damaged Asphalt Around Perimeter of Riser</li> <li>- Grade of the Lid Shall Be Within a 1/4" Tolerance of the Surrounding Pavement and Shall Provide a Smooth Riding Surface</li> </ul>		
<b>TOTAL BID</b>					



**CONTRACTOR INFORMATION**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCIONS**

Respectfully submitted,

Bidder	
Printed Name	
Signature	
Title	
Submittal Date	
Address for Giving Notices	
Telephone	
Fax	
Employer ID	
Contact Name	
Email Address	
Bidder's License No.	
Exp. Date	
Classification	



## ACKNOWLEDGEMENT REGARDING BIDDER SAM REGISTRATION

Pursuant to 2 CFR Parts 183 and 215 and the requirement of the U.S. Department of Housing and Urban Development (HUD), contractors procured directly by grantees, sub-grantees, and/or sub-recipients of HUD funds, including CDBG are required to have an active registration in the System of Award Management (SAM). This document shall be completed and submitted as part of the bid proposal.

1. By submitting this proposal, the prospective bidder certifies that it has an active registration in SAM that is not set to expire within the next 90 days.
2. By submitting this proposal, the prospective bidder certifies neither it, its principals nor affiliates, is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
3. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that an erroneous certification was rendered, in addition to other remedies available to the Federal Government, the Department or agency with which this transaction originated may pursue available remedies.
4. Further, the prospective bidder shall provide immediate written notice to the person to which this proposal is submitted if at any time the Participant learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. By submitting this proposal, it is agreed that should the proposed covered transaction be entered into, the prospective bidder will not knowingly enter into any lower-tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the agency with which this transaction originated.
6. It is further agreed that by submitting this proposal, the prospective bidder will include Certification of Subcontractor Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion without modification, in all lower-tier covered transactions and in all solicitations for lower-tier covered transactions.

Provide the following information as detailed in the prospective bidder's SAM registration:

Entity Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

SAM Entity ID: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Active Exclusions: ☐ Yes ☐ No



## CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

### **Certification by Bidder**

Bidder/Firm: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. ☐ Yes ☐ No
2. Compliance reports were required to be filed in connection with such contract or subcontract. ☐ Yes ☐ No
3. Bidder has filed all compliance reports due under applicable instructions, including SF-100. ☐ Yes ☐ No ☐ None Req.
4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended? ☐ Yes ☐ No

Bidder Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## CERTIFICATION OF BIDDER REGARDING USE OF FEMALE/MINORITY SUBCONTRACTORS

This certification is required for the contractor to demonstrate that when subcontractors are to be used on this project, an attempt will be made to utilize female/minority owned firms.

Documentation must be on file to show who has been contacted.

### **Certification by Bidder**

Bidder/Firm: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

I, \_\_\_\_\_, certify that every attempt was made to utilize female/minority contractors on this project.

Bidder Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



# CERTIFICATION OF SUBCONTRACTOR REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND EXCLUSION

Pursuant to 2 CFR Parts 183, 215, and 2424, and the requirement of the U.S. Department of Housing and Urban Development (HUD), subcontractors for projects that are funded in whole or in part by HUD funds must provide information concerning the entity's debarment, suspension, ineligibility or exclusion status. This document shall be completed and provided to the prime contractor.

1. By signing and submitting this proposal, the prospective lower-tier participant certifies that neither it, its principals nor affiliates, is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency. Further, the Participant provides the certification set out below:
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that an erroneous certification was rendered, in addition to other remedies available to the Federal Government, the Department or agency with which this transaction originated may pursue available remedies.
3. Further, the Participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the Participant learns that this certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. By submitting this document, it is agreed that should the proposed covered transaction be entered into, the Participant will not knowingly enter into any lower-tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction unless authorized by the agency with which this transaction originated.

The subcontracting entity may satisfy the requirement of this document via one of the two options below:

## Option 1: SAM.gov Active Registration

Entity Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

SAM Entity ID: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Active Exclusions: ☐ Yes ☐ No

## Option 2: Signed Certification

Entity Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Entity Representative: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_



<b>CERTIFICATION OF BIDDER REGARDING SECTION 3 AND SEGREGATED FACILITIES</b>
--

NAME OF PRIME CONTRACTOR: \_\_\_\_\_

PROJECT NUMBER: \_\_\_\_\_

The undersigned hereby certifies that

- Section 3 provisions are included in the Contract.
- If contract equals or exceeds \$200,000, the contractor will comply with all Section 3 requirements detailed in the CDBG Manual, including:
  - reporting total labor hours worked,
  - reporting total labor hours worked by Section 3 workers,
  - reporting total labor hours worked by Targeted Section 3 workers,
  - Providing documentation of Section 3 worker status as required for all workers for the project under the covered contract.
- No segregated facilities will be maintained as required by Title VI of the Civil Rights Act of 1964.

\_\_\_\_\_  
Name & Title of Signer (Print or Type)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



<b>DRUG-FREE WORKPLACE AFFIDAVIT</b>
--------------------------------------

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

The undersigned, principal officer of \_\_\_\_\_, an employer of five (5) or more employees contracting with \_\_\_\_\_ government to provide construction services, hereby states under oath as follows:

1. The undersigned is a principal officer of \_\_\_\_\_ (hereinafter referred to as the "Company"), and is duly authorized to execute this Affidavit on behalf of the Company.
2. The Company submits this Affidavit pursuant to T.C.A. § 50-9-113, which requires each employer with no less than five (5) employees receiving pay who contracts with the state or any local government to provide construction services to submit an affidavit stating that such employer has a drug-free workplace program that complies with Title 50, Chapter 9, of the Tennessee Code Annotated.
3. The Company is in compliance with T.C.A. § 50-9-113.

Further affiant saith not.

\_\_\_\_\_  
Principal Officer

STATE OF \_\_\_\_\_

COUNTY OF \_\_\_\_\_

Before me personally appeared \_\_\_\_\_, with whom I am personally acquainted (or proved to me on the basis of satisfactory evidence), and who acknowledged that such person executed the foregoing affidavit for the purposes therein contained.

Witness my hand and seal at office this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_



## CERTIFICATION BY PROPOSED SUBCONTRACTOR REGARDING EQUAL EMPLOYMENT OPPORTUNITY

NAME OF PRIME CONTRACTOR: \_\_\_\_\_

PROJECT NUMBER: \_\_\_\_\_

This certification is required pursuant to Executive Order 11246 (30 F. R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed subcontractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or subcontract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the subcontractor has not filed a compliance report due under applicable instructions, such subcontractor shall be required to submit a compliance report before the owner approves the subcontract or permits work to begin under the subcontract.

### **SUBCONTRACTOR'S CERTIFICATION**

Subcontractor Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

1. Bidder has participated in a previous contract or subcontract subject to the Equal Opportunity Clause. ☐ Yes ☐ No
2. Compliance reports were required to be filed in connection with such contract or subcontract. ☐ Yes ☐ No
3. Bidder has filed all compliance reports due under applicable instructions, including SF-100. ☐ Yes ☐ No ☐ None Req.
4. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended? ☐ Yes ☐ No

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## CERTIFICATION OF PROPOSED SUBCONTRACTOR REGARDING SECTION 3 AND SEGREGATED FACILITIES

NAME OF SUBCONTRACTOR: \_\_\_\_\_

PROJECT NUMBER: \_\_\_\_\_

The undersigned hereby certifies that

- Section 3 provisions are included in the Contract.
- If contract equals or exceeds \$200,000, the contractor will comply with all Section 3 requirements detailed in the CDBG Manual, including:
  - reporting total labor hours worked,
  - reporting total labor hours worked by Section 3 workers,
  - reporting total labor hours worked by Targeted Section 3 workers,
  - Providing documentation of Section 3 worker status as required for all workers for the project under the covered contract.
- No segregated facilities will be maintained as required by Title VI of the Civil Rights Act of 1964.
- 

\_\_\_\_\_  
Name & Title of Signer (Print or Type)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date



<b>STATEMENT OF COMPLIANCE CERTIFICATE</b> <b>ILLEGAL IMMIGRANT</b>
--

EACH CONTRACTOR BIDDING SHALL FILL IN AND SIGN THE FOLLOWING

Bidder Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

This is to certify that \_\_\_\_\_ have fully complied with all the requirements of T.C.A. § 12-3-309, stating:

- (1) No state governmental entity shall contract to acquire goods or services from any person who knowingly utilizes the services of illegal immigrants in the performance of a contract for goods or services entered into with a state governmental entity;
- (2) No person may contract to supply goods or services to a state governmental entity if that person knowingly utilizes the services of illegal immigrants in the performance of a contract to supply goods or services entered into with the state or a state entity.

*All Bidders for construction services on this project shall be required to submit an affidavit (by executing this compliance document) as part of their bid, that attests that such Bidder shall comply with requirements of T.C.A. § 12-3-309.*

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## IRAN DIVESTMENT ACT

In compliance with the Iran Divestment Act (State of Tennessee 2016, Public Chapter No. 817), which became effective on July 1, 2016, certification is required of all bidders on contracts over \$1,000.

*By submission of this bid, each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party hereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to T.C.A. § 12-12-106.*

*I affirm, under the penalties of perjury, this statement to be true and correct.*

Date	Signature of Bidder
	Company

A bid shall not be considered for award nor shall award be made where the foregoing certification has been complied with; provided, however, that if in any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefor. The **City/County of** \_\_\_\_\_ may award a bid to a bidder who cannot make the certification, on case-by-case basis, if:

1. The investment activities in Iran were made before July 1, 2016, the investment activities in Iran have not been expanded or reviewed on or after July 1, 2016, and the person has adopted, publicized, and is implementing a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran; or
2. The **City/County of** \_\_\_\_\_ makes a determination that the goods or services are necessary for the **City/County of** \_\_\_\_\_ to perform its functions and that, absent such an exemption, the political subdivision will be unable to obtain the goods or services for which the contract is offered. Such determination shall be made in writing and shall be a public document.





Department of  
**General Services**

Central  
Procurement Office

July 15, 2016

### NOTICE

Tenn. Code Ann. § 12-12-106 requires the chief procurement officer to publish, using credible information freely available to the public, a list of persons it determines engage in investment activities in Iran, as described in § 12-12-105.

For these purposes, the State intends to use the attached list of “Entities Ineligible to Contract with the State of South Carolina or any Political Subdivision of the State per the Iran Divestment Act of 2014, S.C. Code Ann. §§ 11-57-10, et. seq.”

While inclusion on this list would make a person ineligible to contract with the state of Tennessee, if a person ceases its engagement in investment activities in Iran, it may be removed from the list.

If you feel as though you have been erroneously included on this list please contact the Central Procurement Office at [CPO.Website@tn.gov](mailto:CPO.Website@tn.gov).



List Date: July 7, 2017

1. Abadan Petrochemical Co.
2. Aban Offshore Ltd.
3. Anton Oilfield Services Group
4. Arak Petrochemical
5. Arvandan Oil & Gas
6. Behran Oil Co.
7. Bharat Petroleum Corporation Ltd.
8. China International United Petroleum & Chemical So., Ltd. (Unipet)
9. China National Offshore Oil Corp
10. China National Petroleum Corp (CNPC)
11. China National United Oil Corp.
12. China Petroleum & Chemical Corp.
13. Cosmo Energy Holdings Co. Limited
14. Daelim Industrial
15. Daewoo Engineering & Construction
16. Enel Spa
17. Eni Spa
18. Esfahan Oil Refining Co.
19. Essar Oil Ltd.
20. Fanavarhan Petrochemical Co.
21. Farabi Petrochemical Co.
22. Formosa Petrochemical Corp.
23. Gazprom OAO
24. Gubre Fabrikalari T.A.S.
25. Hellenic Petroleum S.A.
26. Hindustan Petroleum Corp Ltd.
27. Hyundai Heavy Industries.
28. Idemitsu Kosan Co. Ltd.
29. Indian Oil Corporation Ltd.
30. Inpex Corporation
31. Japan Drilling Co., Ltd.
32. Japan Petroleum Exploration Co., Ltd.
33. JXTG Holdings, Inc.
34. Khark Petrochemical.
35. Koc Holding A.S.
36. Korea Gas Corp.
37. Linde AG.
38. Maire Tecnimont S.p.A.
39. Mangalore Refinery & Petrochemicals Ltd.
40. Marubeni Corporation
41. Mitsubishi Materials Corp.
42. Mitsui & Co. Ltd.
43. Naftiran Intratrade Company
44. National Iranian Oil Co.
45. National Iranian South Oil Co.
46. National Iranian Tanker Co.
47. National Shipping Co. of Saudi Arabia
48. North Drilling



49. Oil & Natural Gas Corporation Ltd.
50. Oil India Ltd.
51. Oil Industry Investment Co.
52. ONGC Videsh Ltd. (OVL)
53. Pardis Petrochemical Co.
54. Pars Oil Co.
55. Parsian Oil and Gas Development Co.
56. Petrochemical Industries Investment Co.
57. Petrochemical Transport Co.
58. PetroChina Co. Ltd.
59. PJSC Lukoil
60. Polskie Gornictwo Naftowe i Gazownictwo SA
61. Royal Dutch Shell Plc.
62. Sadid Pipe & Equipments Co.
63. Saras Raffinerie Sarde SPA
64. Sepehr Energy
65. Shiraz Petrochemical Co.
66. Showa Shell Sekiyu K K
67. Sinopec Group.
68. Sk Holdings Co. Ltd.
69. SK Innovation
70. Tabriz Oil Refining Company
71. Total S.A.
72. Toyo Engineering Corporation
73. Turkiye Petrol Rafinerileri AS
74. Zhuh
75. Ai Zhenrong Company



"General Decision Number: TN20220123 01/07/2022

Superseded General Decision Number: TN20210123

State: Tennessee

Construction Type: Heavy  
Including Water and Sewer Line Construction

Counties: Decatur, Dyer, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Lake, Lauderdale, McNairy, Obion and Weakley Counties in Tennessee.

HEAVY CONSTRUCTION PROJECTS (including sewer/water construction).

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022, Executive Order 14026 generally applies to the contract. The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022, Executive Order 13658 generally applies to the contract. The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Modification Number	Publication Date
0	01/07/2022



ENGI0369-011 05/01/2013

	Rates	Fringes
Operating Engineers:		
Bulldozer and Crane.....	\$ 24.47	10.85
-----		
* SUTN2009-122 12/02/2009		

	Rates	Fringes
ELECTRICIAN.....	\$ 20.06	0.00
LABORER: Common or General.....	\$ 9.05	1.57
LABORER: Flagger.....	\$ 10.50	0.00
LABORER: Pipelayer.....	\$ 12.59	0.00
OPERATOR:		
Backhoe/Excavator/Trackhoe.....	\$ 16.76	0.00
TRUCK DRIVER: Dump Truck.....	\$ 11.61	0.81
-----		

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

=====

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

-----

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).



## Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union, which prevailed in the survey for this classification, which in this example would be Plumbers 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

## Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

## Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

---

## WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can



be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Division National Office Branch of Wage Surveys. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

=====

END OF GENERAL DECISION"



**AGREEMENT**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCTIONS**

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_,  
by and between

The City of Tiptonville, TN, herein called "Owner", acting herein through its

Mayor & Board of Aldermen, and

\_\_\_\_\_  
STRIKE OUT (a corporation) (a partnership)  
INAPPLICABLE TERMS (an individual doing business as \_\_\_\_\_)

of \_\_\_\_\_, County of \_\_\_\_\_,

and State of \_\_\_\_\_, hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the OWNER, the CONTRACTOR hereby agrees with the OWNER to commence and complete the construction described as follows: Contract 320, Sanitary Sewer Pipe Cleaning and Inspections; hereinafter called "the project", for the sum of

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_)

and all extra work in connection therewith, under the terms as stated in the General and Special Conditions of the Contract; and at this (its or their) own property cost and expense to furnish all the materials, supplies, machinery, equipment, tools, superintendence, labor, insurance, and other accessories and services necessary to complete the said project in accordance with the conditions and prices stated in the Proposal, the General Conditions, Supplemental General Conditions and Special Conditions of the Contract, the plans, which include all maps, plats, blueprints, and other drawings and printed or written explanatory matter thereof, the specifications and contract documents therefore as prepared by Joel B. Spaulding, Inc., herein entitled "the Engineer", and as enumerated in Paragraph 1 of the Supplemental General Conditions, all of which are made a part hereof and collectively evidence and constitute the contract.

The Contractor hereby agrees to commence work under this contract on or before a date to be specified in a written "Notice to Proceed" of the Owner and to fully complete the project within 90 consecutive calendar days thereafter. The Contractor further agrees to pay, as liquidated damages, the sum of \$200.00 for each consecutive calendar day thereafter as hereinafter provided in Paragraph 3 of the Supplemental General Conditions.

The OWNER agrees to pay the CONTRACTOR in current funds for the performance of the contract, subject to additions and deductions, as provided in the General Conditions of the



**AGREEMENT**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCTIONS**

Contract, and to make payments on account thereof as provided in Paragraph 3, "Payments to Contractor", of the Supplemental General Conditions.

IN WITNESS WHEREOF, the parties to these presents have executed this contract in four (4) counterparts, each of which shall be deemed an original, in the year and day first above mentioned.

(Seal)

ATTEST:

\_\_\_\_\_  
(Owner)

\_\_\_\_\_  
(Secretary)

By: \_\_\_\_\_

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Title)

(Seal)

\_\_\_\_\_  
(Contractor)

\_\_\_\_\_

By: \_\_\_\_\_

\_\_\_\_\_  
(Secretary)

\_\_\_\_\_  
(Title)

\_\_\_\_\_  
(Address and Zip Code)

\_\_\_\_\_

NOTE: Secretary of the Owner should attest. If Contractor is a corporation, Secretary should attest.



**BONDING AND INSURANCE**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCCTIONS**

1. This Attachment sets forth bonding and insurance requirements for grants. No other bonding and insurance requirements shall be imposed other than those normally required by the grantee.
2. Except as otherwise required by law, a grant that requires the contracting (or subcontracting) for construction or facility improvements shall provide for the grantee to follow its own requirements relating to bid guarantees, performance bonds, and payment bonds unless the construction contract or subcontract exceeds \$150,000 (See 2 CFR 200.88). For those contracts or subcontracts exceeding \$150,000, the Federal agency may accept the bonding policy and requirements of the grantee provided the Federal agency has made a determination that the Government's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:
  - a. A bid guarantee from each bidder equivalent to five percent of the bid price. The "bid guarantee" shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
  - b. A performance bond on the part of the contractor for 100 percent of the contract price. A "performance bond" is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
  - c. A payment bond on the part of the contractor for 100 percent of the contract price. A "payment bond" is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.
3. Where the Federal Government guarantees or insures the repayment of money borrowed by the grantee, the Federal agency, at its discretion, may require adequate bonding and insurance if the bonding and insurance requirements of the grantee are not deemed adequate to protect the interest of the Federal Government.
4. Where bonds are required in the situations described above, the bonds shall be obtained from companies holding certificates of authority as acceptable sureties (31 CFR 223).

NOTE: AIA Document A311 is acceptable for use as Performance and Payment Bonds.



**CERTIFICATE OF OWNER'S ATTORNEY**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSEPCTIONS**

I, the undersigned, Mark Hayes, the duly authorized and acting legal representative of the **City of Tiptonville** do hereby certify as follows:

I have examined the attached contract(s) and surety bonds and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with terms, conditions and provisions thereof.

Date: \_\_\_\_\_



## Community Development Block Grant Program GENERAL CONDITIONS

### 1. Contract and Contract Documents

The project to be constructed and pursuant to this contract will be financed with assistance from the Tennessee Community Development Block Grant Program and is subject to all applicable Federal laws and regulations.

The Plans, Specifications and Addenda, hereinafter enumerated in Paragraph 1 of the Supplemental General Conditions shall form part of this Contract and the provisions thereof shall be as binding upon the parties hereto as if they were herein fully set forth. The table of contents, titles, headings, running headlines and marginal notes contained herein and in said documents are solely to facilitate reference to various provisions of the Contract Documents and in no way affect, limit or cast light on the interpretation of the provisions to which they refer.

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## GENERAL CONDITIONS

### ARTICLE 1--DEFINITIONS

Wherever used in these General Conditions or in the other Contract

Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof:

1.1. *Addenda*--Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the Bidding Requirements or the Contract Documents.

1.2. *Agreement*--The written contract between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.3. *Application for Payment*--The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.

1.4. *Asbestos*--Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.

1.5. *Bid*--The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.6. *Bidding Documents*--The advertisement or invitation to Bid, instructions to bidders, the Bid form, and the proposed Contract Documents (including all Addenda issued prior to receipt of Bids).

1.7. *Bidding Requirements*--The advertisement or invitation to Bid, instructions to bidders, and the Bid form.

1.8. *Bonds*--Performance and Payment bonds and other instruments of security.

1.9. *Change Order*--A document recommended by ENGINEER, which is signed by CONTRACTOR and OWNER and authorizes an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.

1.10. *Contract Documents*--The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the Bid and any post Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, the Notice to Proceed, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, together with all Written Amendments, Change Orders, Work Change Directives, Field Orders and ENGINEER's written interpretations and classifications issued pursuant to paragraphs 3.5, 3.6.1, and 3.6.3 on or after the Effective Date of the Agreement. Shop Drawing submittals approved pursuant to paragraphs 6.26 and 6.27 and the reports and drawings referred to in paragraphs 4.2.1.1 and 4.2.2.2 are not Contract Documents.

1.11. *Contract Price*--The moneys payable by OWNER to CONTRACTOR for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of paragraph 11.9.1 in the case of Unit Price Work).

1.12. *Contract Times*--The numbers of days or the dates stated in the Agreement: (i) to achieve Substantial Completion, and (ii) to complete the Work so that it is ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13.

1.13. *CONTRACTOR*--The person, firm or corporation with whom the OWNER has entered into the Agreement.

1.14. *defective*--An adjective which when modifying the word Work refers to Work that is unsatisfactory, faulty or deficient, in that it does not conform to the Contract Documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with paragraph 14.8 or 14.10).

1.15. *Drawings*--The drawings which show the scope, extent and character of the Work to be furnished and performed by CONTRACTOR and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents. Shop drawings are not Drawings as so defined.

1.16. *Effective Date of the Agreement*--The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. *ENGINEER*--The person, firm or corporation named as such in the Agreement.

1.18. *ENGINEER's Consultant*--A person, firm, or corporation having a contract with ENGINEER to furnish services as ENGINEER's independent professional associate or consultant with respect to the Project and who is identified as such in the Supplementary Conditions.

1.19. *Field Order*--A written order issued by ENGINEER which orders minor changes in the Work in accordance with paragraph 9.5 but which does not involve a change in the Contract Price or the Contract Times.

1.20. *General Requirements*--Sections of Division 1 of the Specifications.

1.21. *Hazardous Waste*--The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.

1.22. *Laws and Regulations: Laws or Regulations*--Any and all applicable laws, rules, regulations, ordinances, codes and orders of any and all governmental bodies, agencies, authorities and courts having jurisdiction.

1.23. *Liens*--Liens, charges, security interests or encumbrances upon real property or personal property.



1.24. *Milestone*--A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

1.25. *Notice of Award*--The written notice by OWNER to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.

1.26. *Notice to Proceed*--A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Times will commence to run and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.

1.27. *OWNER*--The public body or authority, corporation, association, firm or person with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.

1.28. *Partial Utilization*--Use by OWNER of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all the Work.

1.29. *PCBs*--Polychlorinated biphenyls.

1.30. *Petroleum*--Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.

1.31. *Project*--The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

1.32. *Radioactive Material*--Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.

1.33. *Resident Project Representative*--The authorized representative of ENGINEER who may be assigned to the site or any part thereof.

1.34. *Samples*--Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.

1.35. *Shop Drawings*--All drawings, diagrams, illustrations, schedules and other data or information which are specifically prepared or assembled by or for CONTRACTOR and submitted by CONTRACTOR to illustrate some portion of the Work.

1.36. *Specifications*--Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

1.37. *Subcontractor*--An individual, firm or corporation having a direct contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.

1.38. *Substantial Completion*--The Work (or a specified part thereof) has progressed to the point where, in the opinion of ENGINEER as evidenced by ENGINEER's definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work is complete and ready for final payment as evidenced by ENGINEER's written recommendation of final payment in accordance with paragraph 14.13. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

1.39. *Supplementary Conditions*--The part of the Contract Documents which amends or supplements these General Conditions.

1.40. *Supplier*--A manufacturer, fabricator, supplier, distributor, materialman or vendor having a direct contract with CONTRACTOR or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by CONTRACTOR or any Subcontractor.

1.41. *Underground Facilities*--All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

1.42. *Unit Price Work*--Work to be paid for on the basis of unit prices.

1.43. *Work*--The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents.

1.44. *Work Change Directive*--A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by OWNER and recommended by ENGINEER, ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in paragraph 4.2 or 4.3 or to emergencies under paragraph 6.23. A Work Change Directive will not change the Contract Price or the Contract Times, but is evidence that the parties expect that the change directed or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times as provided in paragraph 10.2.

1.45. *Written Amendment*--A written amendment of the Contract Documents, signed by OWNER and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the nonengineering or nontechnical rather than strictly construction-related aspects of the Contract Documents.

## ARTICLE 2--PRELIMINARY MATTERS

### *Delivery of Bonds:*

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds



as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

***Copies of Documents:***

2.2. OWNER shall furnish to CONTRACTOR up to ten copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

***Commencement of Contract Times; Notice to Proceed:***

2.3. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement, or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within thirty days after the Effective Date of the Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

***Starting the Work:***

2.4. CONTRACTOR shall start to perform the Work on the date when the Contract Times commence to run, but no Work shall be done at the site prior to the date on which the Contract Times commence to run.

***Before Starting Construction:***

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from ENGINEER before proceeding with any Work affected thereby; however, CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any conflict, error, ambiguity or discrepancy in the Contract Documents, unless CONTRACTOR knew or reasonably should have known thereof.

2.6. Within ten days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), CONTRACTOR shall submit to ENGINEER for review:

2.6.1. a preliminary progress schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;

2.6.2. a preliminary schedule for Shop Drawing and Sample submittals which will list each required submittal and the times for submitting, reviewing and processing such submittal;

2.6.3. a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.7. Before any Work at the site is started, CONTRACTOR and OWNER shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which CONTRACTOR and OWNER respectively are required to purchase and maintain in accordance with paragraphs 5.4, 5.6 and 5.7.

***Preconstruction Conference:***

2.8. Within twenty days after the Contract Times start to run, but before any Work at the site is started, a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in paragraph 2.6, procedures for handling Shop Drawings and other submittals, processing Applications for Payment and maintaining required records.

***Initially Acceptable Schedules:***

2.9. Unless otherwise provided in the Contract Documents, at least ten days before submission of the first Application for Payment a conference attended by CONTRACTOR, ENGINEER and others as appropriate will be held to review for acceptability to ENGINEER as provided below the schedules submitted in accordance with paragraph 2.6. CONTRACTOR shall have an additional ten days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to CONTRACTOR until the schedules are submitted to and acceptable to ENGINEER as provided below. The progress schedule will be acceptable to ENGINEER as providing an orderly progression of the Work to completion within any specified Milestones and the Contract Times, but such acceptance will neither impose on ENGINEER responsibility for the sequencing, scheduling or progress of the Work nor interfere with or relieve CONTRACTOR from CONTRACTOR's full responsibility therefore. CONTRACTOR's schedule of Shop Drawing and Sample submissions will be acceptable to ENGINEER as providing a workable arrangement for reviewing and processing the required submittals. CONTRACTOR's schedule of values will be acceptable to ENGINEER as to form and substance.

ARTICLE 3--CONTRACT DOCUMENT: INTENT,  
AMENDING, REUSE

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***Intent:***

3.1. The Contract Documents comprise the entire agreement between OWNER and CONTRACTOR concerning the Work. The Contract Documents are complementary; what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the law of the place of the Project.

3.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be furnished and performed whether or not specifically called for. When words or phrases which have a well-known technical or construction industry or trade meaning are used to describe Work, materials or equipment, such words or phrases shall be interpreted in accordance with that meaning. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided in paragraph 9.4.



### 3.3. *Reference to Standards and Specifications of Technical Societies; Reporting and Resolving Discrepancies:*

3.3.1. Reference to standards, specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code or Laws or Regulations in effect at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

3.3.2. If, during the performance of the Work, CONTRACTOR discovers any conflict, error, ambiguity or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such Law or Regulation applicable to the performance of the Work or of any such standard, specification, manual or code or of any instruction of any Supplier referred to in paragraph 6.5, CONTRACTOR shall report it to ENGINEER in writing at once, and, CONTRACTOR shall not proceed with the Work affected thereby (except in an emergency as authorized by paragraph 6.23) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in paragraph 3.5 or 3.6; provided, however, that CONTRACTOR shall not be liable to OWNER or ENGINEER for failure to report any such conflict, error, ambiguity or discrepancy unless CONTRACTOR knew or reasonably should have known thereof.

3.3.3. Except as otherwise specifically stated in the Contract Documents or as may be provided by amendment or supplement thereto issued by one of the methods indicated in paragraph 3.5 or 3.6, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity or discrepancy between the provisions of the Contract Documents and:

3.3.3.1. the provisions of any such standard, specification, manual, code or instruction (whether or not specifically incorporated by reference in the Contract Documents); or

3.3.3.2. the provisions of any such Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

No provision of any such standard, specification, manual, code or instruction shall be effective to change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents, nor shall it be effective to assign to OWNER, ENGINEER or any of ENGINEER's Consultants, agents or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of paragraph 9.13 or any other provision of the Contract Documents.

3.4. Whenever in the Contract Documents the terms "as ordered," "as directed," "as required," "as allowed," "as approved" or terms of like effect or import are used, or the adjectives "reasonable," "suitable," "acceptable," "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate, in general, the completed Work for compliance with the requirements of and information in the Contract Documents and conformance with the

design concept of the completed Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective shall not be effective to assign to ENGINEER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 9.13 or any other provision of the Contract Documents.

### *Amending and Supplementing Contract Documents:*

3.5. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.5.1. a formal Written Amendment.

3.5.2. a Change Order (pursuant to paragraph 10.4), or

3.5.3. a Work Change Directive (pursuant to paragraph 10.1).

3.6. In addition, the requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

3.6.1. a Field Order (pursuant to paragraph 9.5),

3.6.2. ENGINEER's approval of a Shop Drawing or Sample (pursuant to paragraphs 6.26 and 6.27), or

3.6.3. ENGINEER's written interpretation or clarification (pursuant to paragraph 9.4).

### *Reuse of Documents:*

3.7. CONTRACTOR, and any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER (i) shall not have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER or ENGINEER's Consultant, and (ii) shall not reuse any of such Drawings, Specifications, other documents or copies on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaption by ENGINEER.

## ARTICLE 4--AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

### *Availability of Lands:*

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR. Upon reasonable written request, OWNER shall furnish CONTRACTOR with a correct statement of record legal title and legal description of the lands upon which the Work is to be performed and OWNER's interest therein as necessary for giving notice of or filing a mechanic's lien against such lands in accordance with applicable Laws and Regulations. OWNER shall identify any encumbrances or restrictions not of general application but



specifically related to use of lands so furnished with which CONTRACTOR will have to comply in performing the Work. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR and OWNER are unable to agree on entitlement to or the amount or extent of any adjustments in the Contract Price or the Contract Times as a result of any delay in OWNER's furnishing these lands, rights-of-way or easements, CONTRACTOR may make a claim therefore as provided in Articles 11 and 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

#### **4.2. Subsurface and Physical Conditions:**

4.2.1. *Reports and Drawings:* Reference is made to the Supplementary Conditions for identification of:

4.2.1.1. *Subsurface Conditions:* Those reports of explorations and tests of subsurface conditions at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents; and

4.2.1.2. *Physical Conditions:* Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site (except Underground Facilities) that have been utilized by ENGINEER in preparing the Contract Documents.

4.2.2. *Limited Reliance by CONTRACTOR Authorized: Technical Data:* CONTRACTOR may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER or any of ENGINEER's Consultants with respect to:

4.2.2.1. the completeness of such reports and drawings for CONTRACTOR's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto, or

4.2.2.2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or

4.2.2.3. any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information.

4.2.3. *Notice of Differing Subsurface or Physical Conditions:* If CONTRACTOR believes that any subsurface or physical condition at or contiguous to the site that is uncovered or revealed either:

4.2.3.1. is of such a nature as to establish that any "technical data" on which CONTRACTOR is entitled to rely as provided in paragraphs 4.2.1 and 4.2.2 is materially inaccurate, or

4.2.3.2. is of such a nature as to require a change in the Contract Documents, or

4.2.3.3. differs materially from that shown or indicated in the Contract Documents, or

4.2.3.4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents; then

CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as permitted by paragraph 6.23), notify OWNER and ENGINEER in writing about such condition. CONTRACTOR shall not further disturb such conditions or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

4.2.4. *ENGINEER's Review:* ENGINEER will promptly review the pertinent conditions, determine the necessity of OWNER's obtaining additional exploration or tests with respect thereto and advise OWNER in writing (with a copy to CONTRACTOR) of ENGINEER's findings and conclusions.

4.2.5. *Possible Contract Documents Change:* If ENGINEER concludes that a change in the Contract Documents is required as a result of a condition that meets one or more of the categories in paragraph 4.2.3., a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document the consequences of such change.

4.2.6. *Possible Price and Times Adjustments:* An equitable adjustment in the Contract Price or in the Contract Times, or both, will be allowed to the extent that the existence of such uncovered or revealed condition causes an increase or decrease in CONTRACTOR's cost of, or time required for performance of, the Work; subject, however, to the following:

4.2.6.1. such condition must meet any one or more of the categories described in paragraphs 4.2.3.1 through 4.2.3.4, inclusive;

4.2.6.2. a change in the Contract Documents pursuant to paragraph 4.2.5 will not be an automatic authorization of nor a condition precedent to entitlement to any such adjustment;

4.2.6.3. with respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of paragraphs 9.10 and 11.9; and

4.2.6.4. CONTRACTOR shall not be entitled to any adjustment in the Contract Price or Times if;

4.2.6.4.1. CONTRACTOR knew of the existence of such conditions at the time CONTRACTOR made a final commitment to OWNER in respect of Contract Price and Contract Times by the submission of a bid or becoming bound under a negotiated contract; or

4.2.6.4.2. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test or study of the site and contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such final commitment; or



4.2.6.4.3. CONTRACTOR failed to give the written notice within the time and as required by paragraph 4.2.3.

If OWNER and CONTRACTOR are unable to agree on entitlement to or as to the amount or length of any such equitable adjustment in the Contract Price or Contract Times, a claim may be made therefore as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages sustained by CONTRACTOR on or in connection with any other project or anticipated project.

#### **4.3. Physical Conditions--Underground Facilities:**

4.3.1. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

4.3.1.1. OWNER and ENGINEER shall not be responsible for the accuracy or completeness of any such information or data; and

4.3.1.2. The cost of all of the following will be included in the Contract Price and CONTRACTOR shall have full responsibility for: (i) reviewing and checking all such information and data, (ii) locating all Underground Facilities shown or indicated in the Contract Documents, (iii) coordination of the Work with the owners of such Underground Facilities during construction, and (iv) the safety and protection of all such Underground Facilities as provided in paragraph 6.20 and repairing any damage thereto resulting from the Work.

4.3.2. *Not Shown or Indicated:* If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by paragraph 6.23), identify the owner of such Underground Facility and give written notice to that owner and to OWNER and ENGINEER. ENGINEER will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence of the Underground Facility. If ENGINEER concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued as provided in Article 10 to reflect and document such consequences. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 6.20. CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents and that CONTRACTOR did not know of and could not reasonably have been expected to be aware of or to have anticipated. If OWNER and CONTRACTOR are unable to agree on entitlement to or the amount or length of any such adjustment in Contract Price or Contract Times, CONTRACTOR may make a claim therefore as provided in Articles 11 and 12. However, OWNER, ENGINEER and ENGINEER's Consultants shall not be liable to CONTRACTOR for any claims, costs, losses or damages incurred or sustained by CONTRACTOR on or in connection with any other project or anticipated project.

#### **Reference Points:**

4.4. OWNER shall provide engineering surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

#### **4.5. Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material:**

4.5.1. OWNER shall be responsible for any Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work and which may present a substantial danger to persons or property exposed thereto in connection with the Work at the site. OWNER shall not be responsible for any such materials brought to the site by CONTRACTOR, Subcontractor, Suppliers or anyone else for whom CONTRACTOR is responsible.

4.5.2. CONTRACTOR shall immediately: (i) stop all Work in connection with such hazardous condition and in any area affected thereby (except in an emergency as required by paragraph 6.23), and (ii) notify OWNER and ENGINEER (and thereafter confirm such notice in writing). OWNER shall promptly consult with ENGINEER concerning the necessity for OWNER to retain a qualified expert to evaluate such hazardous condition or take corrective action, if any. CONTRACTOR shall not be required to resume Work in connection with such hazardous condition or in any such affected area until after OWNER has obtained any required permits related thereto and delivered to CONTRACTOR special written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (ii) specifying any special conditions under which such Work may be resumed safely. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of such Work stoppage or such special conditions under which Work is agreed by CONTRACTOR to be resumed, either party may make a claim therefore as provided in Articles 11 and 12.

4.5.3. If after receipt of such special written notice CONTRACTOR does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then OWNER may order such portion of the Work that is in connection with such hazardous condition or in such affected area to be deleted from the Work. If OWNER and CONTRACTOR cannot agree as to entitlement to or the amount or extent of an adjustment, if any, in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a claim therefore as provided in Articles 11 and 12. OWNER may have such deleted portion of the Work performed by OWNER's own forces or others in accordance with Article 7.

4.5.4. To the fullest extent permitted by Laws and Regulations, OWNER shall indemnify and hold harmless CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents, other consultants and subcontractors of each and any of them from and against all



claims, costs, losses and damages arising out of or resulting from such hazardous condition, provided that: (i) any such claim, cost, loss or damage is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting there from, and (ii) nothing in this subparagraph 4.5.4 shall obligate OWNER to indemnify any person or entity from and against the consequences of that person's or entity's own negligence.

4.5.5. The provisions of paragraphs 4.2 and 4.3 are not intended to apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

## ARTICLE 5--BONDS AND INSURANCE

### ***Performance, Payment and Other Bonds:***

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. These Bonds shall remain in effect at least until one year after the date when final payment becomes due, except as provided otherwise by Laws or Regulations or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of such agent's authority to act.

5.2. If the surety on any Bond furnished by CONTRACTOR is declared a bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of paragraph 5.1, CONTRACTOR shall within ten days thereafter substitute another Bond and surety, both of which must be acceptable to OWNER.

### ***5.3. Licensed Sureties and Insurers; Certificates of Insurance:***

5.3.1. All Bonds and insurance required by the Contract Documents to be purchased and maintained by OWNER or CONTRACTOR shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue Bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.3.2. CONTRACTOR shall deliver to OWNER, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by OWNER or any other additional insured) which CONTRACTOR is required to purchase and maintain in accordance with paragraph 5.4. OWNER shall deliver to CONTRACTOR, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by CONTRACTOR or any other additional insured) which OWNER is

required to purchase and maintain in accordance with paragraphs 5.6 and 5.7 hereof.

### ***CONTRACTOR's Liability Insurance:***

5.4. CONTRACTOR shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance and furnishing of the Work and CONTRACTOR's other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable:

5.4.1. claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.4.2. claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.4.3. claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees;

5.4.4. claims for damages insured by customary personal injury liability coverage which are sustained: (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason;

5.4.5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting there from; and

5.4.6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The policies of insurance so required by this paragraph 5.4 to be purchased and maintained shall:

5.4.7. with respect to insurance required by paragraphs 5.4.3. through 5.4.6 inclusive, include as additional insured (subject to any customary exclusion in respect of professional liability) OWNER, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insured, and include coverage for the respective officers and employees of all such additional insured;

5.4.8. include the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;

5.4.9. include completed operations insurance;

5.4.10. include contractual liability insurance covering CONTRACTOR's indemnity obligations under paragraphs 6.12, 6.16 and 6.31 through 6.33;



5.4.11. contain a provision or endorsement that the coverage afforded will not be cancelled, materially changed or renewal refused until at least thirty days prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the CONTRACTOR pursuant to paragraph 5.3.2 will so provide);

5.4.12. remain in effect at least until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing *defective* Work in accordance with paragraph 13.12; and

5.4.13. with respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least two years after final payment (and CONTRACTOR shall furnish OWNER and each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued evidence satisfactory to OWNER and any such additional insured of continuation of such insurance at final payment and one year thereafter).

#### ***OWNER's Liability Insurance:***

5.5. In addition to the insurance required to be provided by CONTRACTOR under paragraph 5.4, OWNER, at OWNER's option, may purchase and maintain at OWNER's expense OWNER's own liability insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

#### ***Property Insurance:***

5.6. Unless otherwise provided in the Supplementary Conditions, OWNER shall purchase and maintain property insurance upon the Work at the site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:

5.6.1. include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

5.6.2. be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work and Work in transit and shall insure against at least the following perils fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils as may be specifically required by the Supplementary Conditions;

5.6.3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

5.6.4. cover materials and equipment stored at the site or at another location that was agreed to in writing by OWNER prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by ENGINEER; and

5.6.5. be maintained in effect until final payment is made unless otherwise agreed to in writing by OWNER, CONTRACTOR and ENGINEER with thirty days written notice to each other additional insured to whom a certificate of insurance has been issued.

5.7. OWNER shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and any other persons or entities identified in the Supplementary Conditions, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.

5.8. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained by OWNER in accordance with paragraphs 5.6 and 5.7 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least thirty days' prior written notice has been given to OWNER and CONTRACTOR and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with paragraph 5.11.

5.9. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR, Subcontractors or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount, will be borne by CONTRACTOR, Subcontractor or others suffering any such loss and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.10. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policies provided under paragraphs 5.6 or 5.7, OWNER shall, if possible, include such insurance, and the cost thereof will be charged to CONTRACTOR by appropriate Change Order or Written Amendment. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

#### ***5.11. Waiver of Rights:***

5.11.1. OWNER and CONTRACTOR intend that all policies purchased in accordance with paragraphs 5.6 and 5.7 will protect OWNER, CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds in such policies and will provide primary coverage for all losses and damages caused by the perils covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or additional insureds thereunder. OWNER and CONTRACTOR waive all rights against each other and their respective officers, directors, employees and agents for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, ENGINEER, ENGINEER's Consultants and all other persons or entities identified in the Supplementary Conditions to be listed as insureds or additional insureds under such policies for losses and damages so caused. None of the above waivers shall extend to the



rights that any party making such waiver may have to the proceeds of insurance held by OWNER as trustee or otherwise payable under any policy so issued.

5.11.2. In addition, OWNER waives all rights against CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them, for:

5.11.2.1. loss due to business interruption, loss of use or other consequential loss extending beyond direct physical loss or damage to OWNER's property or the Work caused by, arising out of or resulting from fire or other peril, whether or not insured by OWNER; and

5.11.2.2. loss or damage to the completed Project or part thereof caused by, arising out of or resulting from fire or other insured peril covered by any property insurance maintained on the completed Project or part thereof by OWNER during partial utilization pursuant to paragraph 14.10, after substantial completion pursuant to paragraph 14.8 or after final payment pursuant to paragraph 14.13.

Any insurance policy maintained by OWNER covering any loss, damage or consequential loss referred to in this paragraph 5.11.2 shall contain provisions to the effect that in the event of payment of any such loss, damage or consequential loss the insurers will have no rights of recovery against any of CONTRACTOR, Subcontractors, ENGINEER, ENGINEER's Consultants and the officers, directors, employees and agents of any of them.

#### **Receipt and Application of Insurance Proceeds**

5.12. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 will be adjusted with OWNER and made payable to OWNER as fiduciary for the insureds, as their interests may appear, subject to the requirements of any applicable mortgage clause and of paragraph 5.13. OWNER shall deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order or Written Amendment.

5.13. OWNER as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to OWNER's exercise of this power. If such objection be made, OWNER as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, OWNER as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, OWNER as fiduciary shall give bond for the proper performance of such duties.

#### **Acceptance of Bonds and Insurance; Option to Replace;**

5.14. If either party (OWNER or CONTRACTOR) has any objection to the coverage afforded by or other provisions of the Bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.7. OWNER and

CONTRACTOR shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the Bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent Bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

#### **Partial Utilization--Property Insurance:**

5.15. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.10; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be cancelled or permitted to lapse on account of any such partial use or occupancy.

### **ARTICLE 6--CONTRACTOR'S RESPONSIBILITIES**

#### **Supervision and Superintendence:**

6.1. CONTRACTOR shall supervise, inspect and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction, but CONTRACTOR shall not be responsible for the negligence of others in the design or specification of a specific means, method, technique, sequence or procedure of construction which is shown or indicated in and expressly required by the Contract Documents. CONTRACTOR shall be responsible to see that the completed Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and ENGINEER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR.

#### **Labor, Materials and Equipment:**

6.3. CONTRACTOR shall provide competent, suitably qualified personnel to survey, lay out and construct the Work as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. Except as otherwise required for the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during regular working hours and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without OWNER's written consent given after prior written notice to ENGINEER.



6.4. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

6.5. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents.

***Progress Schedule:***

6.6. CONTRACTOR shall adhere to the progress schedule established in accordance with paragraph 2.9 as it may be adjusted from time to time as provided below:

6.6.1. CONTRACTOR shall submit to ENGINEER for acceptance (to the extent indicated in paragraph 2.9) proposed adjustments in the progress schedule that will not change the Contract Times (or Milestones). Such adjustments will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

6.6.2. Proposed adjustments in the progress schedule that will change the Contract Times (or Milestones) shall be submitted in accordance with the requirements of paragraph 12.1. Such adjustments may only be made by a Change Order or Written Amendment in accordance with Article 12.

***6.7. Substitutes and "Or-Equal" Items:***

6.7.1. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent or "or-equal" item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be accepted by ENGINEER under the following circumstances:

6.7.1.1. *"Or-Equal"*: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by ENGINEER as an "or-equal" item, in which case review and approval of the proposed item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the requirements for acceptance of proposed substitute items.

6.7.1.2. *Substitute Items*: If in ENGINEER's sole discretion an item of material or equipment proposed by CONTRACTOR does not qualify as an "or-equal" item under

subparagraph 6.7.1.1., it will be considered a proposed substitute item. CONTRACTOR shall submit sufficient information as provided below to allow ENGINEER to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. The procedure for review by the ENGINEER will include the following as supplemented in the General Requirements and as ENGINEER may decide is appropriate under the circumstances. Requests for review of proposed substitute items of material or equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall first make written application to ENGINEER for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar in substance to that specified and be suited to the same use as that specified. The application will state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified will be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute. ENGINEER may require CONTRACTOR to furnish additional data about the proposed substitute.

6.7.1.3. *CONTRACTOR's Expense*: All data to be provided by CONTRACTOR in support of any proposed "or-equal" or substitute item will be at CONTRACTOR's expense.

6.7.2. *Substitute Construction Methods or Procedures*: If a specific means, method, technique, sequence or procedure of construction is shown or indicated in and expressly required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, technique, sequence or procedure of construction acceptable to ENGINEER. CONTRACTOR shall submit sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in subparagraph 6.7.1.2.

6.7.3. *Engineer's Evaluation*: ENGINEER will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to paragraphs 6.7.1.2 and 6.7.2. ENGINEER will be the sole judge of acceptability. No "or-equal" or substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any "or-equal" or substitute. ENGINEER will record time required by ENGINEER and ENGINEER's Consultants in



evaluating substitutes proposed or submitted by CONTRACTOR pursuant to paragraphs 6.7.1.2 and 6.7.2 and in making changes in the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) occasioned thereby. Whether or not ENGINEER accepts a substitute item so proposed or submitted by CONTRACTOR, CONTRACTOR shall reimburse OWNER for the charges of ENGINEER and ENGINEER's Consultants for evaluating each such proposed substitute item.

***Concerning Subcontractors, Suppliers and Others:***

6.8.1. CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER and ENGINEER as indicated in paragraph 6.8.2), whether initially or as a substitute, against whom OWNER or ENGINEER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

6.8.2. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers or other persons or organization (including those who are to furnish the principal items of materials or equipment) to be submitted to OWNER in advance of the specified date prior to the Effective Date of the Agreement for acceptance by OWNER and ENGINEER, and if CONTRACTOR has submitted a list thereof in accordance with the Supplementary Conditions, OWNER's or ENGINEER's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be removed on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute, the Contract Price will be adjusted by the difference in the cost occasioned by such substitution and an appropriate Change Order will be issued or Written Amendment signed. No acceptance by OWNER or ENGINEER of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject *defective* Work.

6.9.1. CONTRACTOR shall be fully responsible to OWNER and ENGINEER for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions. Nothing in the Contract Documents shall create for the benefit of any such Subcontractor, Supplier or other person or organization any contractual relationship between OWNER and ENGINEER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER or ENGINEER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

6.9.2. CONTRACTOR shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR. CONTRACTOR shall require all Subcontractors, Suppliers and such other persons and organizations performing or furnishing any of the Work to communicate with the ENGINEER through CONTRACTOR.

6.10. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

6.11. All Work performed for CONTRACTOR by a Subcontractor or Supplier will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and ENGINEER. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in paragraph 5.6 or 5.7, the agreement between the CONTRACTOR and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against OWNER, CONTRACTOR, ENGINEER, ENGINEER's Consultants and all other additional insureds for all losses and damages caused by, arising out of or resulting from any of the perils covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, CONTRACTOR will obtain the same.

***Patent Fees and Royalties:***

6.12. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER or ENGINEER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages arising out of or resulting from any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents.

***Permits:***

6.13. Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all construction permits and licenses. OWNER shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

***Laws and Regulations:***

6.14.1. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither OWNER nor ENGINEER shall be responsible for monitoring CONTRACTOR's compliance with any Laws or Regulations.



6.14.2. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, CONTRACTOR shall bear all claims, costs, losses and damages caused by, arising out of or resulting there from; however, it shall not be CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve CONTRACTOR or CONTRACTOR's obligations under paragraph 3.3.2.

**Taxes:**

6.15. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

**Use of Premises:**

6.16. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, rights-of-way, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any adjacent land or areas, resulting from the performance of the Work. Should any claim be made by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations, indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultant and anyone directly or indirectly employed by any of them from and against all claims, costs, losses and damages arising out of or resulting from any claim or action, legal or equitable, brought by any such owner or occupant against OWNER, ENGINEER or any other party indemnified hereunder to the extent caused by or based upon CONTRACTOR's performance of the Work.

6.17. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials. CONTRACTOR shall leave the site clean and ready for occupancy by OWNER at Substantial Completion of the Work. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

6.18. CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

**Record Documents:**

6.19. CONTRACTOR shall maintain in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Change Directives, Field Orders and written interpretations and clarifications (issued pursuant to paragraph 9.4) in good order and annotated to show all changes made during construction. These record documents together with all

approved Samples and a counter part of all approved Shop Drawings will be available to ENGINEER for reference. Upon completion of the Work, these record documents, Samples and Shop Drawings will be delivered to ENGINEER for OWNER.

**Safety and Protection:**

6.20. CONTRACTOR shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.20.1. all persons on the Work site or who may be affected by the Work;

6.20.2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

6.20.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable Laws and Regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraph 6.20.2 or 6.20.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of OWNER or ENGINEER or ENGINEER's Consultant or anyone employed by any of them or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of CONTRACTOR or any Subcontractor, Supplier or other person or organization directly or indirectly employed by any of them). CONTRACTOR's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.13 that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

**Safety Representative:**

6.21. CONTRACTOR shall designate a qualified and experienced safety representative at the site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

**Hazard Communication Program:**

6.22. CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the site in accordance with Laws or Regulations.



***Emergencies:***

6.23. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER or ENGINEER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If ENGINEER determines that a change in the Contract Documents is required because of the action taken by CONTRACTOR in response to such an emergency, a Work Change Directive or Change Order will be issued to document the consequences of such action.

***6.24. Shop Drawings and Samples:***

6.24.1. CONTRACTOR shall submit Shop Drawings to ENGINEER for review and approval in accordance with the accepted schedule of Shop Drawings and Sample submittals (see paragraph 2.9). All submittals will be identified as ENGINEER may require and in the number of copies specified in the General Requirements. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to show ENGINEER the materials and equipment CONTRACTOR proposes to provide and to enable ENGINEER to review the information for the limited purposes required by paragraph 6.26.

6.24.2. CONTRACTOR shall also submit Samples to ENGINEER for review and approval in accordance with said accepted schedule of Shop Drawings and Sample submittals. Each Sample will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended and otherwise as ENGINEER may require to enable ENGINEER to review the submittal for the limited purposes required by paragraph 6.26. The numbers of each Sample to be submitted will be as specified in the Specifications.

***6.25. Submittal Procedures:***

6.25.1. Before submitting each Shop Drawing or Sample, CONTRACTOR shall have determined and verified:

6.25.1.1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto.

6.25.1.2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, and

6.25.1.3. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.

CONTRACTOR shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.

6.25.2. Each submittal will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's obligations under the Contract Documents with respect to CONTRACTOR's review and approval of that submittal.

6.25.3. At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of such variations, if any, that the Shop Drawings or Sample submitted may have from the requirements of the Contract Documents, such notice to be in a written communication separate from the submittal; and, in addition, shall cause a specific notation to be made on each Shop Drawing and Sample submitted to ENGINEER for review and approval of each such variation.

6.26. ENGINEER will review and approve Shop Drawings and Samples in accordance with the schedule of Shop Drawings and Sample submittals accepted by ENGINEER as required by paragraph 2.9. ENGINEER's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed project as a functioning whole as indicated by the Contract Documents. ENGINEER's review and approval will not extend to means, methods, techniques, sequences or procedures of construction (except where particular means, method, technique, sequence or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR shall make corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit as required new Samples for review and approval. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by ENGINEER on previous submittals.

6.27. ENGINEER's review and approval of Shop Drawings or Samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission as required by paragraph 6.25.3 and ENGINEER has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample approval; nor will any approval by ENGINEER relieve CONTRACTOR from responsibility for complying with the requirements of paragraph 6.25.1.

6.28. Where a Shop Drawing or Sample is required by the Contract Documents or the schedule of Shop Drawings and Sample submissions accepted by ENGINEER as required by paragraph 2.9, any related Work performed prior to ENGINEER's review and approval of the pertinent submittal will be at the sole expense and responsibility of CONTRACTOR.

***Continuing the Work:***

6.29. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by paragraph 15.5 or as OWNER and CONTRACTOR may otherwise agree in writing.

***6.30. CONTRACTOR's General Warranty and Guarantee***

6.30.1. CONTRACTOR warrants and guarantees to OWNER, ENGINEER and ENGINEER's Consultants that all Work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:



6.30.1.1. abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or

6.30.1.2. normal wear and tear under normal usage.

6.30.2. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents:

6.30.2.1. observations by ENGINEER;

6.30.2.2. recommendation of any progress or final payment by ENGINEER;

6.30.2.3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;

6.30.2.4. use or occupancy of the Work or any part thereof by OWNER;

6.30.2.5. any acceptance by OWNER or any failure to do so;

6.30.2.6. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.13;

6.30.2.7. any inspection, test or approval by others; or

6.30.2.8. any correction of *defective* Work by OWNER.

#### ***Indemnification:***

6.31. To the fullest extent permitted by Laws and Regulations, CONTRACTOR shall indemnify and hold harmless OWNER, ENGINEER, ENGINEER's Consultants and the officers, directors, employees, agents and other consultants of each and any of them from and against all claims, costs, losses and damages (including but not limited to all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from the performance of the Work, provided that any such claim, cost, loss or damage: (i) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting there from, and (ii) is caused in whole or in part by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by any negligence or omission of a person or entity indemnified hereunder or whether liability is imposed upon such indemnified party by Laws and Regulations regardless of the negligence of any such person or entity.

6.32. In any and all claims against OWNER or ENGINEER or any of their respective consultants, agents, officers, directors or employees by any employee (or the survivor or personal representative of such employee) of CONTRACTOR, any Subcontractor, any Supplier, any person or organization directly or indirectly employed by any of them

to perform or furnish any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under paragraph 6.31 shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier or other person or organization under workers' compensation acts, disability benefit acts or other employee benefit acts.

6.33. The indemnification obligations of CONTRACTOR under paragraph 6.31 shall not extend to the liability of ENGINEER and ENGINEER's Consultants, officers, directors, employees or agents caused by the professional negligence errors or omissions of any of them.

#### ***Survival of Obligations:***

6.34. All representatives, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and acceptance of the Work and termination or completion of the Agreement.

#### **ARTICLE 7--OTHER WORK**

##### ***Related Work at Site:***

7.1. OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefore which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, then: (i) written notice thereof will be given to CONTRACTOR prior to starting any such other work, and (ii) CONTRACTOR may make a claim therefore as provided in Articles 11 and 12 if CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the amount or extent thereof.

7.2. CONTRACTOR shall afford each other contractor who is a party to such a direct contract and each utility owner (and OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work and shall properly connect and coordinate the Work with theirs. Unless otherwise provided in the Contract Documents, CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of such utility owners and other contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between OWNER and such utility owners and other contractors.

7.3. If the proper execution or results of any part of CONTRACTOR's Work depends upon work performed by others under this Article 7, CONTRACTOR shall inspect such other work and promptly report to ENGINEER in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable



for the proper execution and results of CONTRACTOR's Work. CONTRACTOR's failure so to report will constitute an acceptance of such other work as fit and proper for integration with CONTRACTOR's Work except for latent or nonapparent defects and deficiencies in such other work.

**Coordination:**

7.4. If OWNER contracts with others for the performance of other work on the Project at the site, the following will be set forth in Supplementary Conditions:

7.4.1. the person, firm or corporation who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified;

7.4.2. the specific matters to be covered by such authority and responsibility will be itemized; and

7.4.3. the extent of such authority and responsibilities will be provided.

Unless otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

**ARTICLE 8--OWNER'S RESPONSIBILITIES**

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8.1. Except as otherwise provided in these General Conditions, OWNER shall issue all communications to CONTRACTOR through ENGINEER.

8.2. In case of termination of the employment of ENGINEER, OWNER shall appoint an engineer against whom CONTRACTOR makes no reasonable objection, whose status under the Contract Documents shall be that of the former ENGINEER.

8.3. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly when they are due as provided in paragraphs 14.4 and 14.13.

8.4. OWNER's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of explorations and tests of subsurface conditions at the site and drawings of physical conditions in existing structures at or contiguous to the site that have been utilized by ENGINEER in preparing the Contract Documents.

8.5. OWNER's responsibilities in respect of purchasing and maintaining liability and property insurance are set forth in paragraphs 5.5 through 5.10.

8.6. OWNER is obligated to execute Change Orders as indicated in paragraph 10.4.

8.7. OWNER's responsibility in respect of certain inspections, tests and approvals is set forth in paragraph 13.4.

8.8. In connection with OWNER's right to stop Work or suspend Work, see paragraphs 13.10 and 15.1. Paragraph 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.

8.9. The OWNER shall not supervise, direct or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

8.10. OWNER's responsibility in respect of undisclosed Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Materials uncovered or revealed at the site is set forth in paragraph 4.5.

8.11. If and to the extent OWNER has agreed to furnish CONTRACTOR reasonable evidence that financial arrangements have been made to satisfy OWNER's obligations under the Contract Documents, OWNER's responsibility in respect thereof will be as set forth in the Supplementary Conditions.

**ARTICLE 9--ENGINEER'S STATUS DURING CONSTRUCTION**

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**OWNER's Representative:**

9.1. ENGINEER will be OWNER's representative during the construction period. The duties and responsibilities and the limitations of authority of ENGINEER as OWNER's representative during construction are set forth in the Contract Documents and shall not be extended without written consent of OWNER and ENGINEER.

**Visits to Site:**

9.2. ENGINEER will make visits to the site at intervals appropriate to the various stages of construction as ENGINEER deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of CONTRACTOR's executed Work. Based on information obtained during such visits and observations, ENGINEER will endeavor for the benefit of OWNER to determine, in general, if the Work is proceeding in accordance with the Contract Documents. ENGINEER will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. ENGINEER's efforts will be directed toward providing for OWNER a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and on-site observations, ENGINEER will keep OWNER informed of the progress of the Work and will endeavor to guard OWNER against defective Work. ENGINEER's visits and on-site observations are subject to all the limitations on ENGINEER's authority and responsibility set forth in paragraph 9.13, and particularly, but without limitation, during or as a result of ENGINEER's on-site visits or observations of CONTRACTOR's Work ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work.

**Project Representative:**



9.3. If OWNER and ENGINEER agree, ENGINEER will furnish a Resident Project Representative to assist ENGINEER in providing more continuous observation of the Work. The responsibilities and authority and limitations thereon of any such Resident Project Representative and assistants will be as provided in paragraph 9.13 and in the Supplementary Conditions. If OWNER designates another representative or agent to represent OWNER at the site who is not ENGINEER's Consultant, agent or employee, the responsibilities and authority and limitations thereon of such other person will be as provided in the Supplementary Conditions.

***Clarifications and Interpretations:***

9.4. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with the intent of and reasonably inferable from Contract Documents. Such written clarifications and interpretations will be binding on OWNER and CONTRACTOR. If OWNER or CONTRACTOR believes that a written clarification or interpretation justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree to the amount or extent thereof, if any, OWNER or CONTRACTOR may make a written claim therefore as provided in Article 11 or Article 12.

***Authorized Variations in Work:***

9.5. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on OWNER and also on CONTRACTOR who shall perform the Work involved promptly. If OWNER or CONTRACTOR believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times and the parties are unable to agree as to the amount or extent thereof, OWNER or CONTRACTOR may make a written claim therefore as provided in Article 11 or 12.

***Rejecting Defective Work:***

9.6. ENGINEER will have authority to disapprove or reject Work which ENGINEER believes to be *defective*, or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

***Shop Drawings, Change Orders and Payments:***

9.7. In connection with ENGINEER's authority as to Shop Drawings and Samples, see paragraphs 6.24 through 6.28 inclusive.

9.8. In connection with ENGINEER's authority as to Change Orders, see Articles 10, 11, and 12.

9.9. In connection with ENGINEER's authority as to Applications for Payment, see Article 14.

***Determinations for Unit Price:***

9.10. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. ENGINEER will review with CONTRACTOR the ENGINEER's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). ENGINEER's written decision thereon will be final and binding upon OWNER and CONTRACTOR, unless, within ten days after the date of any such decision, either OWNER or CONTRACTOR delivers to the other and to ENGINEER written notice of intention to appeal from ENGINEER's decision and: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in Exhibit GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to ENGINEER's decision, unless otherwise agreed in writing by OWNER and CONTRACTOR. Such appeal will not be subject to the procedures of paragraph 9.11.

***Decisions on Disputes:***

9.11. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work and Claims under Articles 11 and 12 in respect of changes in the Contract Price or Contract Times will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. Written notice of each such claim, dispute or other matter will be delivered by the claimant to ENGINEER and the other party to the Agreement promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within sixty days after the start of such occurrence or event unless ENGINEER allows an additional period of time for the submission of additional or more accurate data in support of such claim, dispute or other matter. The opposing party shall submit any response to ENGINEER and the claimant within thirty days after receipt of the claimant's last submittal (unless ENGINEER allows additional time). ENGINEER will render a formal decision in writing within thirty days after receipt of the opposing party's submittal, if any, in accordance with this paragraph. ENGINEER's written decision on such claim, dispute or other matter will be final and binding upon OWNER and CONTRACTOR unless: (i) an appeal from ENGINEER's decision is taken within the time limits and in accordance with the procedures set forth in EXHIBIT GC-A, "Dispute Resolution Agreement," entered into between OWNER and CONTRACTOR pursuant to Article 16, or (ii) if no such Dispute Resolution Agreement has been entered into, a written notice of intention to appeal from ENGINEER's written decision is delivered by OWNER or CONTRACTOR to the other and to ENGINEER within thirty days after the date of such decision and a formal proceeding is instituted by the appealing party in a forum of competent jurisdiction to exercise such rights or remedies as the appealing party may have with respect to such claim, dispute or other matter in accordance with applicable Laws and Regulations within sixty days of the date of such decision, unless otherwise agreed in writing by OWNER and CONTRACTOR.

9.12. When functioning as interpreter and judge under paragraphs 9.10 and 9.11, ENGINEER will not show partiality to OWNER or CONTRACTOR and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity. The rendering of a decision by ENGINEER pursuant to paragraphs 9.10 or



9.11 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.16) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter pursuant to Article 16.

### **9.13. Limitations on ENGINEER's Authority and Responsibilities:**

9.13.1. Neither ENGINEER's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise or performance of any authority or responsibility by ENGINEER shall create, impose or give rise to any duty owed by ENGINEER to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them.

9.13.2. ENGINEER will not supervise, direct, control or have authority over or be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of the Work. ENGINEER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents.

9.13.3. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

9.13.4. ENGINEER's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals and Other documentation required to be delivered by paragraph 14.12 will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests and approvals that the results certified indicate compliance with, the Contract Documents.

9.13.5. The limitations upon authority and responsibility set forth in this paragraph 9.13 shall also apply to ENGINEER's Consultants, Resident Project Representative and assistants.

## **ARTICLE 10--CHANGES IN THE WORK**

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10.1. Without invalidating the Agreement and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. Such additions, deletions or revisions will be authorized by a Written Amendment, a Change Order, or a Work Change Directive. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

10.2. If OWNER and CONTRACTOR are unable to agree as to the extent, if any, of an adjustment in the Contract Price or an adjustment of the Contract Times that should be allowed as a result of a Work

Change Directive, a claim may be made therefore as provided in Article 11 or Article 12.

10.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 3.5 and 3.6 except in the case of any emergency as provided in paragraph 6.23 or in the case of uncovering Work as provided in paragraph 13.9.

10.4. OWNER and CONTRACTOR shall execute appropriate Change Orders recommended by ENGINEER (or Written Amendments) covering:

10.4.1. changes in the Work which are (i) ordered by OWNER pursuant to paragraph 10.1, (ii) required because of acceptance of *defective* Work under paragraph 13.13 or correcting *defective* Work under paragraph 13.14, or (iii) agreed to by the parties;

10.4.2. changes in the Contract Price or Contract Times which are agreed to by the parties; and

10.4.3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by ENGINEER pursuant to paragraph 9.11;

provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 6.29.

10.5. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

## **ARTICLE 11--CHANGE OF CONTRACT PRICE**

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11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Any claim for an adjustment in the Contract Price shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the start of the occurrence or event giving rise to the claim and stating the general nature of the claim. Notice of the amount of the claim with supporting data shall be delivered within sixty days after the start of such occurrence or event (unless ENGINEER allows additional time for claimant to submit additional or more accurate data in support of the claim) and shall be accompanied by claimant's written statement that the adjustment claimed covers all known amounts to which the claimant is entitled as a result of said occurrence or event. All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise



agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 11.2.

11.3. The value of any Work covered by a Change Order or of any claim for an adjustment in the Contract Price will be determined as follows:

11.3.1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of paragraphs 11.9.1 through 11.9.3, inclusive);

11.3.2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with paragraph 11.6.2);

11.3.3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under paragraph 11.3.2, on the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a CONTRACTOR's fee for overhead and profit (determined as provided in paragraph 11.6).

#### ***Cost of the Work:***

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amount no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Such employees shall include without limitation superintendents, foremen and other personnel employed full-time at the site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays, shall be included in the above to the extent authorized by OWNER.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed or furnished by Subcontractors. If required by OWNER, CONTRACTOR shall

obtain competitive bids from subcontractors acceptable to OWNER and CONTRACTOR and shall deliver such bids to OWNER who will then determine, with the advice of ENGINEER, which bids, if any, will be accepted. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as CONTRACTOR's Cost of the Work and fee as provided in paragraphs 11.4, 11.5, 11.6 and 11.7. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys and accountants) employed for services specifically related to the Work.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER with the advice of ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof--all in accordance with the terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.

11.4.5.5. Deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by CONTRACTOR in connection with the performance and furnishing of the Work (except losses and damages within the deductible amounts of property insurance established by OWNER in accordance with paragraph 5.9), provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining CONTRACTOR's fee. If, however, any such loss or damage requires reconstruction and CONTRACTOR is



placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in paragraph 11.4.1. or specifically covered by paragraph 11.4.4--all of which are to be considered administrative costs covered by the CONTRACTOR's fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for the cost of premiums covered by subparagraph 11.4.5.9 above).

11.5.5. Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of *defective* Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

11.6. The CONTRACTOR's fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. a mutually acceptable fixed fee

11.7. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4 and 11.5, CONTRACTOR will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

#### **Cash Allowance:**

11.8. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be furnished and performed for such sums as may be acceptable to OWNER and ENGINEER. CONTRACTOR agrees that:

11.8.1. the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes; and

11.8.2. CONTRACTOR's cost for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances and no demand for additional payment on account of any of the foregoing will be valid.

Prior to final payment, an appropriate Change Order will be issued as recommended by ENGINEER to reflect actual amounts due CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

#### **11.9. Unit Price Work:**

11.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by ENGINEER in accordance with paragraph 9.10.

11.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item.

11.9.3. OWNER or CONTRACTOR may make a claim for an adjustment in the Contract Price in accordance with Article 11 if:



11.9.3.1. the quantity of any item of Unit Price Work performed by CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and

11.9.3.2. there is no corresponding adjustment with respect to any other item of Work; and

11.9.3.3. if CONTRACTOR believes that CONTRACTOR is entitled to an increase in Contract Price as a result of having incurred additional expense or OWNER believes that OWNER is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

## ARTICLE 12--CHANGE OF CONTRACT TIMES

12.1. The Contract Times (or Milestones) may only be changed by a Change Order or a Written Amendment. Any claim for an adjustment of the Contract Times (or Milestones) shall be based on written notice delivered by the party making the claim to the other party and to ENGINEER promptly (but in no event later than thirty days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim. Notice of the extent of the claim with supporting data shall be delivered within sixty days after such occurrence (unless ENGINEER allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Times (or Milestones) shall be determined by ENGINEER in accordance with paragraph 9.11 if OWNER and CONTRACTOR cannot otherwise agree. No claim for an adjustment in the Contract Times (or Milestones) will be valid if not submitted in accordance with the requirements of this paragraph 12.1.

12.2. All time limits stated in the Contract Documents are of the essence of the Agreement.

12.3. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of CONTRACTOR, the Contract Times (or Milestones) will be extended in an amount equal to the time lost due to such delay if a claim is made therefore as provided in paragraph 12.1. Delays beyond the control of CONTRACTOR shall include, but not be limited to, acts or neglect by OWNER, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions or acts of God. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of CONTRACTOR.

12.4. Where CONTRACTOR is prevented from completing any part of the Work within the Contract Times (or Milestones) due to delay beyond the control of both OWNER and CONTRACTOR, an extension of the Contract Times (or Milestones) in an amount equal to the time lost due to such delay shall be CONTRACTOR's sole and exclusive remedy for such delay. In no event shall OWNER be liable to CONTRACTOR, any Subcontractor, any Supplier, any other person or organization, or to any surety for or employee or agent of any of them, for damages arising out of or resulting from (i) delays caused by or within the control of CONTRACTOR, or (ii) delays beyond the control of both parties including but not limited to fires, floods,

epidemics, abnormal weather conditions, acts of God or acts or neglect by utility owners or other contractors performing other work as contemplated by Article 7.

## ARTICLE 13--TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.1. *Notice of Defects:* Prompt notice of all *defective* Work of which OWNER or ENGINEER have actual knowledge will be given to CONTRACTOR. All *defective* Work may be rejected, corrected or accepted as provided in this Article 13.

### *Access to Work:*

13.2. OWNER, ENGINEER, ENGINEER's Consultants, other representatives and personnel of OWNER, independent testing laboratories and governmental agencies with jurisdiction interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide them proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

### *Tests and Inspections:*

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.

13.4. OWNER shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:

13.4.1. for inspections, tests or approvals covered by paragraph 13.5 below;

13.4.2. that costs incurred in connection with tests or inspections conducted pursuant to paragraph 13.9 below shall be paid as provided in said paragraph 13.9; and

13.4.3. as otherwise specifically provided in the Contract Documents.

13.5. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, pay all costs in connection therewith, and furnish ENGINEER the required certificates of inspection, or approval. CONTRACTOR shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for OWNER's and ENGINEER's acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work.

13.6. If any Work (or the work of others) that is to be inspected, tested or approved is covered by CONTRACTOR without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation.



13.7. Uncovering Work as provided in paragraph 13.6 shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover the same and ENGINEER has not acted with reasonable promptness in response to such notice.

***Uncovering Work:***

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is *defective*, CONTRACTOR shall pay all claims, costs, losses and damages caused by, arising out of or resulting from such uncovering, exposure, observation, inspection and testing and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Article 11. If, however, such Work is not found to be *defective*, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Times (or Milestones), or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement and reconstruction; and, if the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Articles 11 and 12.

***OWNER May Stop the Work:***

13.10. If the Work is *defective*, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any surety or other party.

***Correction or Removal of Defective Work:***

13.11. If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all *defective* Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with Work that is not *defective*. CONTRACTOR shall pay all claims, costs, losses and damages caused by or resulting from such correction or removal (including but not limited to all costs of repair or replacement of work of others).

***13.12. Correction Period:***

13.12.1. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be *defective*, CONTRACTOR shall promptly, without cost to

OWNER and in accordance with OWNER's written instructions: (i) correct such *defective* Work, or, if it has been rejected by OWNER, remove it from the site and replace it with Work that is not *defective*, and (ii) satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If CONTRACTOR does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the *defective* Work corrected or the rejected Work removed and replaced, and all claims, costs, losses and damages caused by or resulting from such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by CONTRACTOR.

13.12.2. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment.

13.12.3. Where *defective* Work (and damage to other Work resulting therefrom) has been corrected, removed or replaced under this paragraph 13.12, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

***Acceptance of Defective Work:***

13.13. If, instead of requiring correction or removal and replacement of *defective* Work OWNER (and, prior to ENGINEER's recommendation of final payment, also ENGINEER) prefers to accept it, OWNER may do so. CONTRACTOR shall pay all claims, costs, losses and damages attributable to OWNER's evaluation of and determination to accept such *defective* Work (such costs to be approved by ENGINEER as to reasonableness). If any such acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Article 11. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to OWNER.

***OWNER May Correct Defective Work:***

13.14. If CONTRACTOR fails within a reasonable time after written notice from ENGINEER to correct *defective* Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph OWNER shall proceed expeditiously. In connection with such corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees, OWNER's other contractors and ENGINEER and ENGINEER's Consultants access to the site to enable OWNER to



exercise the rights and remedies under this paragraph. All claims, costs, losses and damages incurred or sustained by OWNER in exercising such rights and remedies will be charged against CONTRACTOR and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and OWNER shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Article 11. Such claims, costs, losses and damages will include but not be limited to all costs of repair or replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Times (or Milestones) because of any delay in the performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies hereunder.

#### ARTICLE 14--PAYMENTS TO CONTRACTOR AND COMPLETION

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##### *Schedule of Values:*

14.1. The schedule of values established as provided in paragraph 2.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to ENGINEER. Progress payments on account of Unit Price Work will be based on the number of units completed.

##### *Application for Progress Payment*

14.2. At least twenty days before the date established for each progress payment (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting that OWNER has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, all of which will be satisfactory to OWNER. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

##### *CONTRACTOR's Warranty of Title:*

14.3. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens.

##### *Review of Applications for Progress Payment:*

14.5. ENGINEER's recommendation of any payment requested in an Application for Payment will constitute a representation by ENGINEER to OWNER, based on ENGINEER's on-site observations of the executed Work as an experienced and qualified design professional and on ENGINEER's review of the Application for Payment and the accompanying data and schedules, that to the best of ENGINEER's knowledge, information and belief:

14.5.1. the Work has progressed to the point indicated.

14.5.2. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under paragraph 9.10, and to any other qualifications stated in the recommendation), and

14.5.3. the conditions precedent to CONTRACTOR's being entitled to such payment appear to have been fulfilled in so far as it is ENGINEER's responsibility to observe the Work.

However, by recommending any such payment ENGINEER will not thereby be deemed to have represented that: (i) exhaustive or continuous on-site inspections have been made to check the quality or the quantity of the Work beyond the responsibilities specifically assigned to ENGINEER in the Contract Documents or (ii) that there may not be other matters or issues between the parties that might entitle CONTRACTOR to be paid additionally by OWNER or entitle OWNER to withhold payment to CONTRACTOR.

14.6. ENGINEER's recommendation of any payment, including final payment, shall not mean that ENGINEER is responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with Laws and Regulations applicable to the furnishing or performance of Work, or for any failure of CONTRACTOR to perform or furnish Work in accordance with the Contract Documents.

14.7. ENGINEER may refuse to recommend the whole or any part of any payment if, in ENGINEER's opinion, it would be incorrect to make the representations to OWNER referred to in paragraph 14.5. ENGINEER may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended, to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.7.1. the Work is *defective*, or completed Work has been damaged requiring correction or replacement,

14.7.2. the Contract Price has been reduced by Written Amendment or Change Order,



14.7.3. OWNER has been required to correct *defective* Work or complete Work in accordance with paragraph 13.14, or

14.7.4. ENGINEER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 15.2.1 through 15.2.4 inclusive.

OWNER may refuse to make payment of the full amount recommended by ENGINEER because:

14.7.5. claims have been made against OWNER on account of CONTRACTOR's performance or furnishing of the Work,

14.7.6. Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific Bond satisfactory to OWNER to secure the satisfaction and discharge of such Liens.

14.7.7. there are other items entitling OWNER to a set-off against the amount recommended, or

14.7.8. OWNER has actual knowledge of the occurrence of any of the events enumerated in paragraphs 14.7.1. through 14.7.3 or paragraphs 15.2.1 through 15.2.4 inclusive;

but OWNER must have CONTRACTOR immediate written notice (with a copy to ENGINEER) stating the reasons for such action and promptly pay CONTRACTOR the amount so withheld, or any adjustment thereto agreed to by OWNER and CONTRACTOR, when CONTRACTOR corrects to OWNER's satisfaction the reasons for such action.

#### ***Substantial Completion:***

14.8. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is substantially complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, OWNER, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers the Work substantially complete, ENGINEER will prepare and deliver to OWNER a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. OWNER shall have seven days after receipt of the tentative certificate during which to make written objection to ENGINEER as to any provisions of the certificate or attached list. If, after considering such objections, ENGINEER concludes that the Work is not substantially complete, ENGINEER will within fourteen days after submission of the tentative certificate to OWNER notify CONTRACTOR in writing, stating the reasons therefore. If, after consideration of OWNER's objections, ENGINEER considers the Work substantially complete, ENGINEER will within said fourteen days execute and deliver to OWNER and CONTRACTOR a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as ENGINEER believes justified after consideration of any objections from OWNER. At the time of delivery of the tentative certificate of Substantial Completion ENGINEER will deliver to OWNER and CONTRACTOR a written recommendation as to division of responsibilities pending final payment between OWNER

and CONTRACTOR with respect to security, operation, safety, maintenance, heat, utilities, insurance and warranties and guarantees. Unless OWNER and CONTRACTOR agree otherwise in writing and so inform ENGINEER in writing prior to ENGINEER's issuing the definitive certificate of Substantial Completion, ENGINEER's aforesaid recommendation will be binding on OWNER and CONTRACTOR until final payment.

14.9. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the tentative list.

#### ***Partial Utilization:***

14.10. Use by OWNER at OWNER's option of any substantially completed part of the Work which: (i) has specifically been identified in the Contract Documents, or (ii) OWNER, ENGINEER and CONTRACTOR agree constitutes a separately functioning and usable part of the Work that can be used by OWNER for its intended purpose without significant interference with CONTRACTOR's performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.10.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any such part of the Work which OWNER believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees that such part of the Work is substantially complete, CONTRACTOR will certify to OWNER and ENGINEER that such part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify OWNER and ENGINEER in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, OWNER, CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify OWNER and CONTRACTOR in writing giving the reasons therefore. If ENGINEER considers that part of the Work to be substantially complete, the provisions of paragraphs 14.8 and 14.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

14.10.2. No occupancy or separate operation of part of the Work will be accomplished prior to compliance with the requirements of paragraph 5.15 in respect of property insurance.

#### ***Final Inspection:***

14.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, ENGINEER will make a final inspection with OWNER and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or *defective*. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

#### ***Final Application for Payment:***



14.12. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered in accordance with the Contract Documents all maintenance and operating instructions, schedules, guarantees, Bonds, certificates or other evidence of insurance required by paragraph 5.4, certificates of inspection, marked-up record documents (as provided in paragraph 6.19) and other documents, CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied (except as previously delivered) by: (i) all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by subparagraph 5.4.13, (ii) consent of the surety, if any, to final payment, and (iii) complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu of such releases or waivers of Liens and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full and an affidavit of CONTRACTOR that: (i) the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and (ii) all payrolls, material and equipment bills and other indebtedness connected with the Work for which OWNER or OWNER's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

***Final Payment and Acceptance:***

14.13. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR's other obligations under the Contract Documents have been fulfilled, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing ENGINEER's recommendation of payment and present the Application to OWNER for payment. At the same time ENGINEER will also give written notice to OWNER and CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.15. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

14.14. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

***Waiver of Claims:***

14.15. The making and acceptance of final payment will constitute:

14.15.1. a waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to

paragraph 14.11, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from CONTRACTOR's continuing obligations under the Contract Documents; and

14.15.2. a waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled.

**ARTICLE 15--SUSPENSION OF WORK AND TERMINATION**

***OWNER May Suspend Work:***

15.1. At any time and without cause, OWNER may suspend the Work, or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and ENGINEER which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be allowed an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if CONTRACTOR makes an approved claim therefore as provided in Articles 11 and 12.

***OWNER May Terminate:***

15.2. Upon the occurrence of any one or more of the following events:

15.2.1. if CONTRACTOR persistently fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 2.9 as adjusted from time to time pursuant to paragraph 6.6);

15.2.2. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

15.2.3. if CONTRACTOR disregards the authority of ENGINEER; or

15.2.4. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents;

OWNER may, after giving CONTRACTOR (and the surety, if any,) seven days' written notice and to the extent permitted by Laws and Regulations, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which Owner has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may deem expedient. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds all claims, costs, losses and damages sustained by OWNER arising out of or resulting from completing the Work such excess will be paid to CONTRACTOR. If such claims, costs, losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to OWNER. Such claims, costs, losses and damages incurred by



OWNER will be reviewed by ENGINEER as to their reasonableness and when so approved by ENGINEER incorporated in a Change Order, provided that when exercising any rights or remedies under this paragraph OWNER shall not be required to obtain the lowest price for the Work performed.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4. Upon seven day's written notice to CONTRACTOR and ENGINEER, OWNER may, without cause and without prejudice to any other right or remedy of OWNER, elect to terminate the Agreement. In such case, CONTRACTOR shall be paid (without duplication of any items);

15.4.1. for completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;

15.4.2. for expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

15.4.3. for all claims, costs, losses and damages incurred in settlement of terminated contracts with Subcontractors, Suppliers and others; and

15.4.4. for reasonable expenses directly attributable to termination.

CONTRACTOR shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

#### ***CONTRACTOR May Stop Work or Terminate:***

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application of Payment within thirty days after it is submitted or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven days' written notice to OWNER and ENGINEER, and provided OWNER and ENGINEER do not remedy such suspension or failure within that time, terminate the Agreement and recover from OWNER payment on the same terms as provided in paragraph 15.4. In lieu of terminating the Agreement and without prejudice to any other right or remedy, if ENGINEER has failed to act on an Application for Payment within thirty days after it is submitted, or OWNER has failed for thirty days to pay CONTRACTOR any sum finally determined to be due, CONTRACTOR may upon seven day's written notice to OWNER and ENGINEER stop the Work until payment of all such amount due CONTRACTOR, including interest thereon. The provisions of this paragraph 15.5 are not intended to preclude CONTRACTOR from making claim under Articles 11 and 12 for an increase in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to CONTRACTOR's stopping Work as permitted by this paragraph.

## **ARTICLE 16--DISPUTE RESOLUTION**

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If and to the extent that OWNER and CONTRACTOR have agreed on the method and procedure for resolving disputes between them that may arise under this Agreement, such dispute resolution method and procedure, if any, shall be as set forth in Exhibit GC-A, "Dispute Resolution Agreement," to be attached hereto and made a part hereof. If no such agreement on the method and procedure for resolving such disputes has been reached, and subject to the provisions of paragraphs 9.10, 9.11, and 9.12, OWNER and CONTRACTOR may exercise such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any dispute.

## **ARTICLE 17--MISCELLANEOUS**

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### ***Giving Notice:***

17.1. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

### ***Computation of Times:***

17.2.1. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.2.2. A calendar day of twenty-four hours measured from midnight to the next midnight will constitute a day.

### ***Notice of Claim:***

17.3. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph 17.3 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.



***Cumulative Remedies:***

17.4. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.12, 6.16, 6.30, 6.31, 6.32, 13.1, 13.12, 13.14, 14.3 and 15.2 and all of the rights and remedies available to OWNER and ENGINEER thereunder, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right and remedy to which they apply.

***Professional Fees and Court Costs Included:***

17.5. Whenever reference is made to "claims, costs, losses and damages," it shall include in each case, but not be limited to, all fees and charges of engineers, architects, attorneys and other professionals and all court or arbitration or other dispute resolution costs.

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**1. ENUMERATION OF PLANS, SPECIFICATIONS AND ADDENDA**

Following are the Plans, Specifications and Addenda which form a part of this contract, as set forth in Paragraph 1 of the General Conditions, "Contract and Contract Documents":

**DRAWINGS**

General Construction:	Nos.	SEE INDEX
Heating and Ventilating:	"	
Plumbing:	"	
Electrical:	"	
_____	"	
_____	"	

**SPECIFICATIONS:** SEE INDEX

General Construction	Page	_____	to	_____	incl.
	Page	_____	to	_____	incl.
Heating and Ventilating:	Page	_____	to	_____	incl.
Plumbing:	Page	_____	to	_____	incl.
Electrical:	Page	_____	to	_____	incl.
_____	Page	_____	to	_____	incl.
_____	Page	_____	to	_____	incl.

**ADDENDA:**

No.	_____	Date	_____	No.	_____	Date	_____
No.	_____	Date	_____	No.	_____	Date	_____

**2. STATED ALLOWANCES NONE**

Pursuant to Article 11.8 of the General Conditions, the Contractor shall include the following cash allowances in his proposal:

(a)	For	_____	(Page	_____	of Specifications)	\$
(b)	For	_____	(Page	_____	of Specifications)	\$
(c)	For	_____	(Page	_____	of Specifications)	\$
(d)	For	_____	(Page	_____	of Specifications)	\$
(e)	For	_____	(Page	_____	of Specifications)	\$
(f)	For	_____	(Page	_____	of Specifications)	\$ _____



### 3. A. Payments to Contractor

1. To insure the proper performance of this contract, the Owner shall retain five percent (5%) of the amount of each estimate until final completion and acceptance of all work covered by this contract: Provided that the Contractor shall submit his estimate not later than the first day of the month: Provided further that on completion and acceptance of each separate building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made in full, including retained percentages thereon, less authorized deductions.
2. In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.
3. All material and work covered by partial payments made shall thereupon become the sole property of the Owner, but this provision shall not be construed as relieving the Contractor from the sole responsibility for the care and protection of materials and work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the Owner to require the fulfillment of all of the terms of the contract.
4. Owner's Right to Withhold Certain Amounts and Make Application Thereof:  
The Contractor agrees that he will indemnify and save the Owner harmless from all claims growing out of the lawful demands of subcontractors, laborers, workers, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, power tools, and all supplies, including commissary, incurred in the furtherance of the performance of this contract. The Contractor shall, at the Owner's request, furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged, or waived. If the Contractor fails so to do, then the Owner may, after having served written notice on the said Contractor, either pay unpaid bills, of which the Owner has written notice, direct, or withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the Contractor shall be resumed, in accordance with the terms of this contract, but in no event shall the provisions of this sentence be construed to impose any obligations upon the Owner to either the Contractor or his Surety. In paying any unpaid bills of the Contractor, the Owner shall be deemed the agent of the Contractor, and any payment so made by the Owner shall be considered as a payment made under the contract by the Owner to the Contractor and the Owner shall not be liable to the Contractor for any such payments made in good faith.

### B. Payments by Contractor



The Contractor shall pay (a) for all transportation and utility services not later than the 20th day of the calendar month following that in which services are rendered, (b) for all materials, tools, and other expendable equipment to the extent of ninety percent (90%) of the cost thereof, not later than the 20th day of the calendar month following that in which such materials, tools, and equipment are delivered at the site of the project, and the balance of the cost thereof, not later than the 30th day following the completion of that part of the work in or on which such materials, tools, and equipment are incorporated or used, and (c) to each of his subcontractors, not later than the 5th day following each payment to the Contractor, the respective amounts allowed the Contractor on account of the work performed by his subcontractors to the extent of each subcontractor's interest therein.

### **C. Time for Completion and Liquidated Damages**

It is hereby understood and mutually agreed, by and between the Contractor and the Owner, that the date of beginning and the time for completion as specified in the contract of the work to be done hereunder are ESSENTIAL CONDITIONS of this contract; and it is further mutually understood and agreed that the work embraced in this contract shall be commenced on a date to be specified in the "Notice to Proceed".

The Contractor agrees that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will insure full completion thereof within the time specified. It is expressly understood and agreed, by and between the Contractor and the Owner, that the time for the completion of the work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing in this locality.

If the said Contractor shall neglect, fail or refuse to complete the work within the time herein specified, or any proper extension thereof granted by the Owner, then the Contractor does hereby agree, as a part consideration for the awarding of this contract, to pay to the Owner the amount specified in the contract, not as a penalty but as liquidated damages for such breach of contract as hereinafter set forth, for each and every calendar day that the Contractor shall be in default after the time stipulated in the contract for completing the work.

The said amount is fixed and agreed upon by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the Owner would in such event sustain, and said amount is agreed to be the amount of damages which the Owner would sustain and said amount shall be retained from time to time by the Owner from current periodical estimates.



It is further agreed that time is of the essence of each and every portion of this contract and of the specifications wherein a definite and certain length of time is fixed for the performance of any act whatsoever; and where under the contract an additional time is allowed for the completion of any work, the new time limit fixed by such extension shall be of the essence of this contract. Provided that the Contractor shall not be charged with liquidated damages or any excess cost when the Owner determines that the Contractor is without fault and the Contractor's reasons for the time extension are acceptable to the Owner; Provided further that the Contractor shall not to be charged with liquidated damages or any excess cost when the delay in completion of the work is due:

- (a) To any preference, priority or allocation order duly issued by the Government.
- (b) To unforeseeable cause beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, or of the public enemy, acts of the Owner, acts of another Contractor in the performance of a contract with the Owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and severe weather; and
- (c) To any delays of Subcontractors or suppliers occasioned by any of the causes specified in subsections (a) and (b) of this article:

Provided further that the Contractor shall, within ten (10) days from the beginning of such delay, unless the Owner shall grant a further period of time prior to the date of final settlement of the contract, notify the Owner, in writing, of the delay and notify the Contractor within a reasonable time of its decision in the matter.

#### **D. Protection of Lives and Health**

"The Contractor shall exercise proper precaution at all times for the protection of persons and property and shall be responsible for all damages to persons or property, either on or off the site, which occur as a result of his prosecution of the work. The safety provisions of applicable laws and building and construction codes, in addition to specific safety and health regulations described by Chapter XIII, Bureau of Labor Standards, Department of Labor, Part 1518, Safety and Health Regulations for Construction, as outlined in the Federal Register, Volume 36, No. 75, Saturday, April 17, 1971. Title 29 - LABOR, shall be observed and the Contractor shall take or cause to be taken, such additional safety and health measures as the Contracting Authority may determine to be reasonably necessary."

#### **E. Subcontracts**

The contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5 (a)(1) through (10) and such other clauses as the (Department of Housing and Urban Development) may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

#### **F. Interest of Member of or Delegate to Congress**



No member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or to any benefit that may arise there from, but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

#### **G. Other Prohibited Interests**

No official of the Owner who is authorized in such capacity and on behalf of the Owner to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part hereof. No officer, employee, architect, attorney, engineer or inspector of or for the Owner who is authorized in such capacity and on behalf of the Owner to exercise any legislative, executive, supervisory or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally in this contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

#### **H. Use and Occupancy Prior to Acceptance by Owner**

The Contractor agrees to the use and occupancy of a portion or unit of the project before formal acceptance by the Owner, provided the Owner:

- (a) Secures written consent of the Contractor except in the event, in the opinion of the Architect/Engineer, the Contractor is chargeable with unwarranted delay in final clean-up of punch list items or other contract requirements.
- (b) Secures endorsement from the insurance carrier and consent of the surety permitting occupancy of the building or use of the project during the remaining period of construction, or,
- (c) When the project consists of more than one building, and one of the buildings is occupied, secures permanent fire and extended coverage insurance, including a permit to complete construction. Consent of the surety must also be obtained.

#### **I. Photographs of the Project**

If required by the Owner, the Contractor shall furnish photographs of the project, in the quantities and as described in the Supplemental General Conditions.

#### **J. Suspension of Work**

Should the Owner be prevented or enjoined from proceeding with work either before or after the start of construction by reason of any litigation or other reason beyond the control of the Owner, the Contractor shall not be entitled to make or assert claim for damage by reason of said delay; but time for completion of the work will be extended to such reasonable time as the Owner may determine will compensate for time lost by such delay with such determination to be set forth in writing.

### **4. FEDERAL LABOR STANDARDS PROVISIONS**



## Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

### A. 1. (i) Minimum Wages

All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR 5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less than often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(iv). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 FR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

- (ii)(a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:



- (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and
  - (2) The classification is utilized in the area by the construction industry; and
  - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)
- (c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representative, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)
- (d) The wage rate (including the fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.



- (iv) If the contractor does not make payments to a trustee or other third persons, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

## 2. Withholding

HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices and trainees, employed by the contractor or any subcontractor the full amount of wages required by the contract.

In the event of failure to pay any laborer or mechanic, including any apprentice or trainee, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make sure disbursements in the case of direct Davis-Bacon Act contracts.

## 3. (i) Payrolls and basic records.



Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1 (b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

- (ii)(a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant, sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149).
- (b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
  - (1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.5(a)(3)(i) and that such information is correct and complete;



- (2) That each laborer or mechanic (including each apprentice and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;
    - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
  - (c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph A.3.(ii)(b) of this section.
  - (d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.
  - (iii) The contractor or subcontractor shall make the records required under paragraph A.3.(i) of this section available for inspection, copying, or transcription by authorized representative of HUD or its designee or the Department of Labor, and shall permit such representative to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.12.
4. (i) Apprentices.



Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe



benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees.

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity.

The utilization of apprentices, trainees and journeyman under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements.

The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.



6. Subcontracts.

The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5

7. Contract termination; debarment.

A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements.

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards.

Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.



#### 10. Certification of Eligibility.

- (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.
- (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.
- (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part "Whoever, for the purpose of ...influencing in any way the action of such Administration ...makes, utters or publishes any statement, knowing the same to be false ...shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

#### 11. Complaints, Proceedings, or Testimony by Employees.

No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

#### B. Contract Work Hours and Safety Standards Act

As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

##### 1. Overtime requirements.

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

##### 2. Violation; liability for unpaid wages, liquidated damages.



In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

3. Withholding for unpaid wages and liquidated damages.

HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

4. Subcontracts.

The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety



1. No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.
2. The contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat. 96).
3. The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

## **5. SPECIAL HAZARDS**

The Contractor's and his Subcontractor's Public Liability and Property Damage Insurance shall provide adequate protection against the following special hazards:

## **6. CONTRACTOR'S AND SUBCONTRACTOR'S PUBLIC LIABILITY, VEHICLE LIABILITY, AND PROPERTY DAMAGE INSURANCE**

As required under Article 5 of the General Conditions, the Contractor's Public Liability Insurance and Vehicle Liability Insurance shall be in an amount not less than \$ 500,00 for injuries, including accidental death, to any one person, and subject to the same limit for each person, in an amount not less than \$ 500,00 on account of one accident, and Contractor's Property Damage Insurance in an amount not less than \$ 500,00.

The Contractor shall either (1) require each of his subcontractors to procure and to maintain during the life of his subcontract, Subcontractor's Public Liability and Property Damage Insurance of this type and in the same amounts as specified in the preceding paragraph, or (2) insure the activities of his subcontractors in his own policy.

## **7. PHOTOGRAPHS OF PROJECT**

As provided in Paragraph 3.I of the Supplemental General Conditions, the Contractor will furnish photographs in the number, type, and stage as enumerated below:

## **8. SCHEDULE OF OCCUPATIONAL CLASSIFICATIONS AND MINIMUM HOURLY WAGE RATES AS REQUIRED UNDER PARAGRAPH 4.B OF THE SUPPLEMENTAL GENERAL CONDITIONS**

Given on Pages SEE INDEX and         .



## 9. BUILDER'S RISK INSURANCE

As provided in the General Conditions, Article 5.6, the Contractor ■■■ will not\*\* maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portions of the project for the benefit of the Owner, the Contractor, and all Subcontractors, as their interests may appear.

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\*\* Strike out one.

## 10. SPECIAL EQUAL OPPORTUNITY PROVISIONS

### A. Activities and Contracts Not Subject to Executive Order 11246, as Amended

(Applicable to Federally assisted construction contracts and related subcontracts \$10,000 and under.)

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
2. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer setting forth the provisions of this nondiscrimination clause. The Contractor shall state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.
3. Contractors shall incorporate foregoing requirements in all subcontracts.

### B. Executive Order 11246 (contracts/subcontracts above \$10,000)

1. Section 202 Equal Opportunity Clause

During the performance of this contract, the Contractor agrees as follows:



- a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration without regard to race, color, religion, sex, or national origin.
- c. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the Contract Compliance Officer advising the said labor union or workers' representatives of the Contractor's commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Department of the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and others.
- f. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be cancelled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.



- g. The Contractor will include the provisions of the sentence immediately preceding paragraph a. and the provisions of paragraphs a. through g. in every subcontract or purchase order unless exempted by rules, regulations, orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Department may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the Department, the Contractor may request the United States to enter into such litigation to protect the interest of the United States.
2. Notice of Requirement for Affirmative Action to ensure Equal Employment Opportunity (Executive Order 11246).  
(Applicable to contracts/subcontracts exceeding \$10,000.)
- a. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
- b. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation	Goals for female participation
Insert Goals	Insert Goals
<u>26.5%</u>	<u>6.9%</u>

NOTE: THESE GOALS MUST BE PROVIDED. Also, list State Geographic Area to be covered on following page.

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area. If the Contractor performs construction work in a geographic area located outside of the covered area, it shall apply the goals established for such geographic area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its Federally involved and non-Federally involved construction.



The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

- c. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
  - d. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is LAKE COUNTY, TN.
3. Standard Federal Equal Employment Opportunity Construction Contract Specifications (Executive Order 11246)
- a. As used in these specifications:
    - (1) "Covered area" means the geographical area described in the solicitation from which this contract resulted;
    - (2) "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
    - (3) "Employer identification number" means the federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941;
    - (4) "Minority" includes:
      - (a) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);



- (b) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South America or other Spanish Culture or origin, regardless of race);
  - (c) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);
  - (d) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- b. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
- c. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.



- d. The Contractor shall implement the specific affirmative action standards provided in paragraphs g.(1) through (16) of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing contracts in geographical areas where they do not have a Federal or Federally-assisted construction contract shall apply the minority and female goals established for the geographic area where the contract is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
- e. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
- f. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
- g. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:



- (1) Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
- (2) Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its union have employment opportunities available, and maintain a record of the organization's responses.
- (3) Maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source, or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the Contractor may have taken.
- (4) Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
- (5) Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under g.(2) above.



- (6) Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company's EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- (7) Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination, or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- (8) Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- (9) Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date of the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- (10) Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer, and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.



- (11) Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.
  - (12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
  - (13) Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
  - (14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
  - (15) Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
  - (16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
- h. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations g.(1) through (16). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the Contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under g.(1) through (16) of these Specifications provided that the Contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation shall not be a defense for the Contractor's non-compliance.



- i. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- j. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.
- k. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
- l. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- m. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph g. of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.



- n. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company's EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee, the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number where assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and location at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractor shall not be required to maintain separate records.
- o. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

C. Certification of Nonsegregated Facilities (Over \$10,000)

By the submission of this bid, the bidder, offeror, applicant or subcontractor certifies that he/she does not maintain or provide for his/her employees any segregated facility at any of his/her establishments, and that he/she does not permit employees to perform their services at any location, under his/her control, where segregated facilities are maintained. He/She certifies further that he/she will not maintain or provide for employees any segregated facilities at any of his/her establishments, and he/she will not permit employees to perform their services at any location under his/her control where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause of this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas, \*\*\*transportation and housing facilities provided for employees which are segregated on the basis of race, color, religion, or are in fact segregated on the basis of race, color, religion, or otherwise. He/She further agrees that (except where he/she has obtained identical certifications from proposed subcontractors for specific time periods) he/she will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that he/she will retain such certifications in his/her files; and that he/she will forward the following notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).

D. Civil Rights Act of 1964



Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

E. Section 109 of the Housing and Community Development Act of 1974

No person in the United States shall on the grounds of race, color, national origin, or sex be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

F. "The Section 3 Clause"

1. The work to be performed under this contract is on a project assisted under a program providing direct Federal financial assistance from the Department of Housing and Urban Development and is subject to the requirements of section 3 of the Housing Urban Development Act of 1968, as amended, 12 U.S.C. 1701u. Section 3 requires that to the greatest extent feasible, opportunities for training and employment be given to lower income residents of the area of the Section 3 covered project, and contracts for work in connection with the project be awarded to business concerns which are located in, or owned in substantial part by persons residing in the area of the Section 3 covered project.
2. The parties to this contract will comply with the provisions of said Section 3 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set forth in 24 Part CFR 135, and all applicable rules and orders of the Department issued thereunder prior to the execution of this contract. The parties to this contract certify and agree that they are under no contractual or other disability which would prevent them from complying with these requirements.
3. The contractor will send to each labor organization or representative of workers with which he has a collective bargaining agreement or other contract or understanding, if any, a notice advising the said labor organization or workers' representative of his commitments under this Section 3 clause and shall post copies of the notice in conspicuous places available to employees and applicants for employment or training.
4. The contractor will include this Section 3 clause in every subcontract for work in connection with the project and will, at the direction of the applicant for or recipient of Federal Financial assistance, take appropriate action pursuant to the subcontract upon a finding that the subcontractor is in violation of regulations issued by the Secretary of Housing and Urban Development, 24 CFR Part 135. The contractor will not subcontract with any subcontractor where it has notice or knowledge that the latter has been found in violation of regulations under 24 CFR part 135 and will not let any subcontract unless the subcontractor has first provided it with a preliminary statement of ability to comply with the requirements of these regulations.



5. Compliance with the provisions of Section 3, the regulations set forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued thereunder prior to the execution of the contract, shall be a condition of the Federal financial assistance provided to the project, binding upon the applicant or recipient, its contractors and subcontractors, its successors, and assigns to those sanctions specified by the grant or loan agreement or contract through which Federal assistance is provided, and to such sanctions as are specified by 24 CFR Part 135.

G. Age Discrimination Act of 1975

No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving Federal financial assistance.

H. Section 504 Handicapped

Non-Discrimination for Handicapped Workers

No otherwise qualified handicapped individual in the U.S., as defined in Section 7, Paragraph 6 of the Rehabilitation Act of 1973 shall, solely by reason of this handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

## 11. **CERTIFICATION OF COMPLIANCE WITH AIR AND WATER ACTS**

(Applicable to Federally assisted construction contracts and related subcontracts exceeding \$100,000)

Compliance with Air and Water Acts

During the performance of this contract the contractor and all subcontractors shall comply with the requirements of the Clean Air Act, as amended, 42 USC 1857 et seq., the Federal Water Pollution Control Act, as amended, 33 USC 1251 et seq., and the regulations of the Environmental Protection Agency with respect thereto, at 40 CFR Part 15, as amended.

In addition to the foregoing requirements, all nonexempt contractors and subcontractors shall furnish to the Owner, the following:

1. A stipulation by the Contractor or subcontractors, that any facility to be utilized in the performance of any nonexempt contract or subcontract, is not listed on the List of Violating Facilities issued by the Environmental Protection Agency (EPA) pursuant to 40 CFR 15.20.



2. Agreement by the Contractor to comply with all the requirements of Section 114 of the Clean Air Act, as amended, (42 USC 1857c-8) and Section 308 of the Federal Water Pollution Control Act, as amended, (33 USC 1318) relating to inspection, monitoring, entry, reports and information, as well as all other requirements specified in said Section 114 and Section 308, and all regulations and guidelines issued thereunder.
3. A stipulation that as a condition for the award of the contract, prompt notice will be given of any notification received from the Director, Office of Federal Activities, EPA, indicating that a facility utilized, or to be utilized for the contract, is under consideration to be listed on the EPA List of Violating Facilities.
4. Agreement by the Contractor that he will include, or cause to be included, the criteria and requirements in paragraph (1) through (4) of this section in every nonexempt subcontract and requiring that the Contractor will take such action as the Government may direct as a means of enforcing such provisions.

## 12. **SPECIAL CONDITIONS PERTAINING TO HAZARDS, SAFETY STANDARDS AND ACCIDENT PREVENTION**

### A. Lead-Based Paint Hazards

(Applicable to contracts for construction or rehabilitation of residential structures.) The construction or rehabilitation of residential structures is subject to the HUD Lead-Based Paint regulations, 24 CFR Part 35. The Contractor and Subcontractors shall comply with the provisions for the elimination of lead-base paint hazards under sub-part B of said regulations. The Owner will be responsible for the inspections and certifications required under Section 35.14(f) thereof.

### B. Use of Explosives (Modify as Required)

When the use of explosives is necessary for the prosecution of the work, the Contractor shall observe all local, state and Federal laws in purchasing and handling explosives. The Contractor shall take all necessary precaution to protect completed work, neighboring property, water lines, or other underground structures. Where there is danger to structures or property from blasting, the charges shall be reduced and the material shall be covered with suitable timber, steel or rope mats.

The Contractor shall notify all owners of public utility property of intention to use explosives at least eight hours before blasting is done, close to such property. Any supervision or direction of use of explosives by the engineer, does not in any way reduce the responsibility of the Contractor or his Surety for damages that may be caused by such use.

### C. Danger Signals and Safety Devices (Modify as Required)



The Contractor shall make all necessary precautions to guard against damages to property and injury to persons. He shall put up and maintain in good condition, sufficient red or warning lights at night, suitable barricades and other devices necessary to protect the public. In case the Contractor fails or neglects to take such precautions, the Owner may have such lights and barricades installed and charge the cost of this work to the Contractor. Such action by the Owner does not relieve the Contractor of any liability incurred under these specifications or contract.

### **13. FLOOD DISASTER PROTECTION**

This Contract is subject to the requirements of the Flood Disaster Protection Act of 1973 (P.L. 93-234). Nothing included as a part of this Contract is approved for acquisition or construction purposes as defined under Section 3(a) of said Act, for use in an area identified by the Secretary of HUD as having special flood hazards which is located in a community not then in compliance with the requirements for participation in the national flood insurance program pursuant to Section 201(d) of said Act; and the use of any assistance provided under this Contract for such acquisition or construction in such identified areas in communities then participating in the national flood insurance program shall be subject to the mandatory purchase of flood insurance requirements of Section 102(a) of said Act.

Any contract or agreement for the sale, lease, or other transfer of land acquired, cleared or improved with assistance provided under the Contract shall contain, if such land is located in an area identified by the Secretary as having special flood hazards and in which the sale of flood insurance has been made available under the National Flood Insurance Act of 1968, as amended, 42 U.S.C. 4001 et seq., provisions obligating the transferee and its successors or assigns to obtain and maintain, during the ownership of such land, such flood insurance as required with respect to financial assistance for acquisition or construction purposes under Section 102(a) of the Flood Disaster Protection Act of 1973.

### **14. ACCESS TO RECORDS/MAINTENANCE OF RECORDS**

The Contractor shall maintain accounts and records, including personnel, property, and financial records, adequate to identify and account for all costs pertaining to the contract and such other records as may be deemed necessary by the locality to assure proper accounting for all funds. These records will be available for audit purposes to the locality or the State or any other authorized representative, and will be retained for three years after contract completion unless permission to destroy them is granted by the locality. Moreover, the locality, State, or any authorized representative shall have access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purpose of making audit, examination, excerpts, and transcriptions.

### **15. CONFLICT OF INTEREST OF OFFICERS OR EMPLOYEES OF THE LOCAL JURISDICTION, MEMBERS OF THE LOCAL GOVERNING BODY, OR OTHER PUBLIC OFFICIALS**

No officer or employee of the local jurisdiction or its designees or agents, no member of the governing body, and no other public official of the locality who exercises any function or responsibility with respect to this contract, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed. Further, the contractor shall cause to be incorporated in all subcontracts the language set forth in this paragraph prohibiting conflict of interest.



## 16. DRUG-FREE WORKPLACE

Under the provisions of Tennessee Code Annotate § 50-9-113 enacted by the General Assembly effective 2001, a) employers with five (5) or more employees who contract with either the state or a local government to provide construction services are required to submit an affidavit stating that they have a drug free workplace program that complies with Title 50, Chapter 9, in effect at the time of submission of a bid at least to the extent required of governmental entities. The statute, imposes other requirements on the contractor, but the grantee's responsibility is specifically limited in section (b) of the state as follows:

*(b) A written affidavit by the principal officer of a covered employer provided to a local government at the time such bid or contract is submitted stating that the employer is in compliance with this section shall absolve the local government of all further responsibility under this section and any liability arising from the employer's compliance or failure of compliance with the provisions of this section.*

## 17. PROJECT SIGN NO PROJECT SIGN REQUIRED

If a project sign is erected, it must include the following:

Governor (Name)  
 Department of Economic and Community Development  
 Commissioner (Name)  
 CDBG Grant (Amount)



**GENERAL SCOPE AND SPECIAL PROVISIONS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**1.0 SCOPE OF THE WORK**

The work to be accomplished under these specifications consists of furnishing of all labor, materials, equipment, and services necessary for the construction of:

Contract 320 – Sanitary Sewer Pipe Cleaning and Inspections

**2.0 QUALIFICATIONS**

All bidders must be licensed Tennessee Contractors and qualified for the type of project being bid upon. Bidder must be able to demonstrate specialized experience and technical expertise relating to the type of services to be provided and the ready availability of qualified and experienced personnel capable of completing the work within the time specified. The Consulting Engineer shall be considered the sole judge of the bidder's qualifications and their decision will be final. The Owner reserves the right to reject any and all proposals, to waive any informality, irregularity, mistake, error or omission in any proposals received and to accept the proposal deemed most favorable to the Owner's interest and the public good as determined by the Engineer and Owner.

The intent of the specific language used in these specifications is not to disqualify an otherwise qualified bidder, but to promote competition and protect the Owner's interests and the public good as regards the finished project. In the event that a prospective Bidder finds it necessary to take exception to the portions of these specifications found in the minutiae, specifically, any overly precise language, or trivial detail that may be too narrow, or too broad, or too restrictive, or not restrictive enough, which inadvertently skews competition and/or causes unfair advantage to any bidder, the Bidder may request that the Engineer allow the Bidder to take exception by noting same at any time prior to Contract Award. The Engineer reserves the right to use reasonable and sensible judgement in approving deviations from the specifications if he believes the deviations do not materially impact the Owner's interest and the public good.

Each field inspection supervisor shall be NASSCO PACP certified. Use of MACP/PACP certified technicians to review/document defects in the office (post inspection/assessment) is not acceptable.

The Inspection Contractor must have an internal quality assurance/quality control program in place and all inspection data shall be subjected to the procedures prior to submittal to the Engineer. The Engineer will perform QA/QC audits on submitted data.

QA/QC shall be performed by NASSCO PACP certified personnel.

**3.0 PRE-BID**

For the bid proceedings, the provisions in the "Information for Bidders" shall be strictly adhered to by all parties. The CONTRACT DOCUMENTS including all addenda and the



**GENERAL SCOPE AND SPECIAL PROVISIONS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

information contained in the bid package contain the provisions required for the construction of the PROJECT.

After the BIDS have been submitted, the BIDDER shall not assert that there was a misunderstanding concerning the quantities of WORK or the nature of WORK to be done.

Questions relative to the WORK shall be submitted to the ENGINEER; ENGINEER will respond promptly. All questions raised by any BIDDER and ENGINEER's subsequent response will be available to each BIDDER upon request. Inquiries shall be submitted during normal business hours to:

Bruce Spaulding, PE  
Joel B. Spaulding & Company, Inc.  
3322 West End Avenue, Suite 106  
Nashville, TN 37203  
Fax: (615) 255-7767  
Email: bruce@joelbspaulding.com

The officers and all employees of the City of Tiptonville have been instructed to have NO CONTACT written, verbal, or otherwise with any BIDDER concerning this contract or the work involved other than to assist in the identification of the sites in the field. The BIDDERS are requested to honor this instruction.

Failure to comply with the above instructions is a basis for rendering BID non-responsive.

**4.0 DISCREPANCY OF STATEMENTS**

The Contractor shall clarify any discrepancies found in the Plans, Specifications, and Contract Documents with the Engineer prior to the bid letting. After contract award, discrepancies noted are solely subject to the interpretation of the Engineer. Generally, the most restrictive condition will apply.

**5.0 DRUG FREE WORKPLACE CERTIFICATION – T.C.A. 50-9-113**

A written affidavit regarding a Drug Free Workplace Program in conformance with T.C.A. 50-9-113 will be submitted by the Contractor with the Bid and the Construction Contract.

**6.0 DAVIS BACON WAGE RATE REQUIREMENTS**

Davis Bacon Wage Rate requirements will apply. The Contractor's attention is directed to the applicable wage rate included in these contract documents. The Contractor will be required to provide to the owner certified payroll reports for each period. The Contractor is also responsible for providing the weekly payroll reports for any sub-contractor performing work on the job.



**GENERAL SCOPE AND SPECIAL PROVISIONS**  
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**7.0 EXECUTION OF CONTRACTS**

The construction contracts and bonds shall be executed within the time specified in the Proposal, and in at least four (4) copies.

**8.0 BONDS AND INSURANCE**

Each Bidder will provide a 5% Bid Bond. The Contractor will provide (4) original Performance and Payment Bonds in 100% of the amount of the Contract.

The Contractor will provide insurance coverage as per the Supplemental Conditions.

**9.0 EXECUTION, COORDINATION, SCHEDULE, AND PROGRESS OF THE WORK**

The Contractor shall commence work under this contract within 21 days of “Notice to Proceed” and shall fully complete the project within 90 consecutive calendar days thereafter as stipulated. The Contractor will be charged liquidated damages in the sum of **\$200.00** for each consecutive calendar day thereafter for breach of contract.

TIME IS OF THE ESSENCE OF THIS CONTRACT and the Contractor is required to pursue the work continuously upon mobilization during normal work days and hours without delays, absences, postponements, temporary abandonment of the project for other work, removal of necessary equipment prior to completion, of failure to provide adequate manpower or necessary equipment.

Abandonment of the work constitutes breach of contract.

**10.0 ACCESS TO AND INSPECTION OF WORK**

Representatives of the City of Tiptonville and Joel B. Spaulding & Company, Inc. Consulting Engineers shall have at all times full access to records and physical facilities for inspection of the work and of all materials intended for use in the work, as well as to plants where such materials are produced and the Contractor shall provide facilities for such access and inspection.

**11.0 FIELD SUPERVISION**

The Contractor shall designate to the project at least one full time on-site responsible representative who can officially receive instructions from the Engineer.

**12.0 APPLICATION FOR PAYMENTS**

Five Percent (5%) retainage will be withheld for the entire duration of the Contract until all Contract Conditions are met, including the submittal of all reports, data, cleanup activities, etc.



**GENERAL SCOPE AND SPECIAL PROVISIONS**  
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To ensure timely payment of partial requests, the Contractor shall confirm each day all quantities for payment with the owner.

**13.0 GUARANTEE**

The Contractor shall guarantee all work and materials for a period of one year after the date of acceptance, substantial completion, or beneficial occupancy as established by the Engineer.



**PIPE CONDITION ASSESSMENT USING CCTV**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**PART ONE – GENERAL**

**1.01 SCOPE OF SERVICES AND WORK PHASING**

- A. The purpose of this bid is to obtain competitive unit prices for all labor, material, and equipment necessary to clean, locate via GPS, and inspect via closed-circuit television (CCTV) existing sewers. The work includes cleaning existing sanitary sewer pipes, locating existing sanitary sewer structures, and remote televising and recording of the sewer. All project locations will be within the Owner's service area.
- B. The work to be completed on each section of sewer will be performed in phases as defined in the following:
  - 1. Phase 1 – Inspection
    - a. Note: All manholes located along the pipe segments being inspected via CCTV shall be located using GPS collection methods outlined in the "GPS Data Collection and Delivery Standards" section of these specifications.
    - b. Sewer sections shall be inspected by means of remote CCTV. If a blockage hampers the inspection of the sewer in one direction, then the Contractor shall attempt to complete the section by televising from the other manhole to complete the section. The Contractor must immediately report the obstruction to the Owner or its representative (hereinafter referred to as the "Owner"). All CCTV work shall conform to Current NASSCO-PACP standards.
    - c. CCTV inspections will be delivered entirely in electronic format.
      - i. All PACP Header information shall be completed in accordance with PACP Guidelines. In addition to mandatory Header fields, additional fields are required as noted on the attached Header Field Matrix.
      - ii. The documentation of the work shall consist of PACP CCTV Reports, PACP database, logs, electronic reports, etc. noting important features and all defects encountered during the inspection. The speed of travel shall be slow enough to inspect each pipe joint, tee connection, structural deterioration, infiltration and inflow sources, and deposits, but should not, at any time, be faster than 30 feet per minute, except as noted otherwise in this document.
      - iii. The camera must be centered in the pipe to provide accurate distance measurements to provide locations of features in the sewer and these footage measurements shall be displayed and documented on the video. All PACP Observations shall be identified by audio and on PACP log. All video must be continuously metered from manhole. The pipe should be clean enough to ensure all defects, features and observations are seen and logged. If cleaning is required, see NASSCO Performance Specification Guideline for Sewer Pipe Cleaning.
  - 2. Phase 2 – Sewer Pipe Cleaning
    - a. Based on the Engineer's review, he or she will determine if additional work will be required. The Engineer, at its sole discretion, will either declare the



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work on the particular sewer section complete or notify the Contractor of additional work (i.e. Phase 3 – Light Sewer Cleaning, Heavy Cleaning, Deposit Cut, Root Cut Medium, Root Cut Ball, or Lateral Cut). See NASSCO Performance Specification Guideline for Sewer Pipe Cleaning.

3. Phase 3 – Additional Sewer Pipe Cleaning (As Required)
    - a. The Contractor shall perform the assigned additional work, which may be any one of the following items: Light Sewer Cleaning, Heavy Cleaning, Deposit Cut, Root Cut Medium, Root Cut Ball, or Lateral Cut.
  4. Phase 4 – Post Cleaning Inspection
    - a. Final televising of the sewer section to evaluate the condition of the sewer section after all cleaning has been performed in Phase 3. Phase 4 will be required to be performed and will be reimbursed at the bid unit price.
    - b. The recorded video must show the entire circumference of the sewer. Any flow control to remove standing water and debris shall be incidental to the contract. It is not the intent of this specification to require bypass pumping to control heavy flow; however, the Contractor must, at a minimum, make reasonable effort to control the flow. The Contractor must also consider weather conditions to obtain the best video image of the sewer. This may require the Contractor to delay any video work after major rain events until the system can return to lower dry weather flow. The Contractor shall submit PACP data to include the electronic video reports, logs, etc. for the Owner's review as required in Part 1 Section 6.
    - c. The sections of sewer to be cleaned and televised through this contract will be located primarily within the paved areas of the public right-of-way; however, there may be some sewer sections that are located within public easements on private property. The successful bidder will be responsible to coordinate and gain access to all sewer sections and will be responsible for any restoration in accordance with Part 3 Section 3.7. This will include written authorization between Contractor and landowner. Costs associated with access will be included with other items bid in this contract.
- C. The Contractor shall furnish all labor, components, materials, tools, and appurtenances necessary for the performance and completion of the contract.
- D. Award of the contract will be determined through an evaluation of bids and in the best interest of the Owner.
- E. The Contractor will be held fully liable for any damages incurred that are caused by its negligence.
- F. Patents, Trade Secrets, and Copyrights: The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the work or the incorporation in the work of any invention, design, process, product, or device which is the subject of patent rights, trade secrets protection rights, or copyrights held by others. The Contractor shall indemnify and hold harmless the



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Owner and Engineer and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorney's fees and court and arbitration costs) arising out of any infringement of patent rights, trade secret protection rights, or copyright incident to the use in the performance of the work or resulting from the incorporation in the work of any invention, design, process, product or device not specified in the contract documents, and shall defend all such claims in connection with any alleged infringement of such rights.

**1.02 OWNER (CITY OF TIPTONVILLE, TN)**

- A. This contract will be administered and performed under the direction and inspection of the Owner, Engineer, and/or its designated representative. Questions pertaining to this contract, before and after award, should be directed to the Engineer at the following locations:

Bruce Spaulding, PE  
Joel B. Spaulding & Company, Inc.  
3322 West End Ave., Suite 106  
Nashville, TN 37203  
(615) 255-7766  
[bruce@joelbspaulding.com](mailto:bruce@joelbspaulding.com)

**1.03 TIME OF PERFORMANCE, SCHEDULING, AND LIQUIDATED DAMAGES**

- A. Upon award of the contract, the Contractor shall CCTV at least three (3) segments or 1,000 feet of pipe and submit the data to the Engineer to verify that the CCTV database is compatible with the Engineer's Database, and the deliverables are acceptable to the Engineer. The Engineer shall verify acceptability of the deliverables within five (5) business days of receipt. After the Engineer verifies compatibility of the inspection deliverables including the database, the Owner / Engineer shall then issue to the Contractor a written "Notice to Proceed" including a date for commencement of work. The Contractor shall begin work on the date stated in the written "Notice to Proceed" (but no later than 10 calendar days after receipt) with an adequate force and sufficient resources to demonstrate due diligence in the performance of the contract.
- B. By bidding this work, the bidder is agreeing to provide an adequate number of crews to perform the work concurrently with due diligence and as specified in its approved schedule.

**1.04 COMPLIANCE AND ACCEPTANCE**

- A. Compliance with this contract shall be complete when all conditions set forth in these specifications have been met. The following defines each work item, the level of effort, and quality of work that will be necessary to meet the intent of this specification.



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**B. Pre-Cleaning Inspection:**

1. The preferred method for Pre-Cleaning Inspection is color CCTV conforming to National Association of Sewer Service Companies' (NASSCO) Pipeline Assessment Certification Program (PACP), exported electronically in a PACP compliant format. Other methods for inspection, including CCTV, zoom camera inspection, digital sidewall scanning inspections, acoustical technologies, etc. must be preapproved by the Engineer prior to inspection of the sewer interior.
2. Should the level or type of debris differ from the original inspection, the work type can be adjusted by the Engineer to the proper work type and the work shall be paid at the adjusted, proper rate. The Contractor shall be responsible for providing evidence of the change in conditions to the Engineer.

**C. Light Sewer Cleaning (Each Segment)**

1. Removal of Deposits Settled (DS):
  - a. Up to 12-inches 25%
  - b. 13- to 24-inches 15%
  - c. 25- to 30-inches 10%
2. The Contractor shall clean the sewer and associated manholes, including drop connections and benches, to remove all Deposits Settled (DS), so that the sewer is ready for televising. This will require an unlimited number of passes of a hydraulic flusher to remove all loose debris and collect it for removal in the downstream manhole. All debris must be removed from the sewer, including any debris that may have been washed up into any service connections (does not include known pre-existing conditions in service connections), drop connections or the bench wall of the manholes. This item does not include any root cutting, deposit removal, or grinding of protruding service connections.

**D. Heavy Sewer Cleaning (Each Segment)**

1. Removal of Obstructions (OB) and Deposits Settled (DS) that exceed percentage established for light cleaning. This also includes Deposits Attached Grease (DAGS) if able to remove with rotating nozzle or other mechanical means; not to include saws or cutters. Compliance with this section requires substantial effort towards cleaning
2. Under this bid item, the Contractor shall remove all obstructions in the sewer. All debris must be removed from the sewer, including any debris that may have been washed up into any service connections (does not include known pre-existing conditions in service connections), drop connections or the bench wall of the manholes. This includes all grease, rocks, debris, sticks, etc. that will reduce the hydraulic capacity of the sewer and limit future maintenance access of remote equipment. This work will include an unlimited number of passes by high velocity hydro-cleaning equipment. A mechanical/hydraulic Spinner Nozzle may be used where necessary at no additional cost to the Owner; however, the Contractor shall be responsible for any damage to the



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sewer or any service connections. This item does not include cutting/grinding protruding break-in connections, as that work will be paid under a separate bid item.

3. The Contractor shall maintain detailed documentation of cleaning efforts made to remove these items. Such documentation shall be made available to the Engineer at any time.
4. The Contractor shall immediately notify the Engineer if he believes that this level of cleaning will cause a sewer collapse due to the existing deterioration of the host pipe. The Engineer's determination whether to continue or stop work is final.

**E. Root Cut (Each Segment)**

1. Root Cut Medium - Removal of Roots Medium (RM), and Root Balls (RB) in one or two joints.
2. Root Cut Ball – Removal of Root Balls (RB) removed in at least 3 joints.
3. The Engineer shall determine if the sewer segment requires root cut cleaning. All roots must be screened, collected, and removed from the sewer for proper disposal.
4. The Contractor shall immediately notify the Engineer if he believes that these activities performed under this paragraph will cause a sewer collapse due to the existing deterioration of the host pipe. Engineer's determination whether to continue or stop work is final.

**F. Deposit Cut (Each Segment)**

1. Removal of Deposits Attached Encrustation (DAE) and Deposits Attached Grease (DAGS) that require a cutter to remove.
2. Under this bid item, the Contractor shall remove all obstructions in the sewer. All debris must be removed from the sewer, including any debris that may have been washed up into any service connections (does not include known pre-existing conditions in service connections), drop connections or the bench wall of the manholes. This includes all deposits, grease, debris, sticks, etc. that will reduce the hydraulic capacity of the sewer and limit future maintenance access of remote equipment. This work will include an adequate number of passes using high velocity hydro-cleaning equipment required to produce a clean pipe in accordance with these specifications. A mechanical/hydraulic root, chain cutter, etc. may be used where necessary at no additional cost to the City; however, the Contractor shall be responsible for any damage to the sewer or any service connections. This item does not include cutting/grinding protruding break-in connections, as that work will be paid under a separate bid item
3. Compliance with this section requires substantial effort towards cleaning, chipping, cutting, grinding, etc. to remove hardened deposits, grease, etc. The Contractor shall use remote CCTV equipment to monitor the progress of the work and ensure that the sewer is not damaged.
4. The Contractor shall immediately notify the Engineer if he believes that activities performed under this paragraph will cause damage due to the



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existing deterioration of the host pipe. The Engineer's determination whether to continue or stop work is final.

5. The Contractor shall maintain detailed documentation of cleaning efforts made to remove these items.
6. If attached deposits cannot be removed by tools normally used in the industry, the Engineer should be consulted immediately. The Engineer and the Contractor should discuss whether to cancel the work on that segmentation or negotiate a flat rate or hourly rate for the Contractor to do the work.

**G. Lateral Cuts**

1. Removing protruding laterals, excludes DIP, SP, CAS etc.
2. The Engineer shall determine when break-in service connections will require grinding based on his review of the initial survey television inspection. The Contractor shall cut/grind the protruding service connection by using a remote grinding/cutting device capable of removing, concrete, vitrified clay, PVC, and other types of pipe material. The device shall be specifically designed to cut/grind protruding service connections. The Contractor shall use remote CCTV equipment to monitor the progress of the work and ensure that the service connection is not damaged.
3. The protruding break-in service connection shall be cut/ground flush to the main sewer pipe without scouring or damaging the main sewer or service connection. All cuttings must be screened, collected, and removed from the sewer for proper disposal.
4. During the final survey television inspection, the Contractor shall slowly pan the entire circumference of the trimmed connection to verify the quality of the work.
5. The Contractor shall immediately notify the Engineer if he believes that the pipe is not structurally sound. The Contractor and Engineer shall discuss the severity and risk of cutting/grinding the lateral. The Engineer shall then determine, if they want the lateral cut/ground, at the City's risk, or if the work should not be performed on this contract.
6. If other than typical lateral materials are encountered, the Contractor shall notify the Engineer, and the Engineer and Contractor should discuss the ability, costs and risks associated with cutting/grinding the lateral. The Engineer shall decide whether to cut/grind the lateral or to not cut/grind the lateral. If the Engineer decides to cut/grind the lateral, the price should be negotiated between the Engineer and Contractor, prior to cutting/grinding the lateral.

**H. Debris Records**

1. The Contractor shall keep records of types of debris, removed from each segment of pipe and provide these records to Engineer in the format requested by Engineer.

**I. Final Survey Television Inspection**



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1. As in the initial survey television inspection pay item, CCTV inspections will be conducted entirely in digital format.
2. All CCTV work shall conform to the most current NASSCO PACP standards. The documentation of the work shall consist of NASSCO PACP CCTV Reports, Unmodified NASSCO PACP database, logs, electronic reports, etc. noting defects and observations encountered during the inspection.

**1.05 REFERENCED DOCUMENTS**

- A. All work must also conform to the latest edition of the following specifications (as required in advance by the Owner):
  1. NASSCO PACP Standards
  2. Tennessee Department of Transportation, Construction and Materials Specifications
  3. These Specifications and Standard Drawings
  4. Rules and Regulations of the Office of the City
  5. Others, as required
- B. Liability and Assumptions: To minimize and appropriately allocate costs and risks, it is in the best interest of all contracted parties (Owner and Contractor) and prospective parties (i.e., Bidders) to understand thoroughly the risks associated with any project. For that reason, we will define herein, what is standard practice in the procurement and completion of sewer cleaning and inspection so that everyone involved can effectively assess their obligations, risks, and duties. **Liability for removal of equipment that becomes stuck in the sewer should be discussed in the contract.**
  1. Negligence Caused – Contractor
  2. Owner Decision to proceed after concerns raised – Owner
  3. Unforeseen Hazard (i.e., hole in pipe under flow line and not visible) – To be discussed in advance to mutually agree upon liability based on the CCTV leading up to the hazard.
- C. Assumptions
  1. It is reasonable and customary to assume the following, unless otherwise detailed in writing:
    - a. The Owner has provided the Parties (Contractor and/or Bidders), in writing, with all the information that the Owners possess that would allow the Parties to assess the entire scope of the project accurately and fully.
    - b. The Owner possesses or has contracted the services of a person or entity who possesses the knowledge, expertise, and experience to fully understand the scope of the service for which they are attempting to contract with the Parties.
    - c. The Parties are knowledgeable, capable, and legally authorized to contract for the services in question.
    - d. The infrastructure for which the services are requested are in suitable condition to allow for the activities which are usual and customary for the



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services requested without undue risk to the Parties equipment or personnel, unless otherwise described by the Owner in writing.

D. Liabilities: Should it be found during initial investigation and/or during performance that conditions are different than those which are typical and customary and outside of the assumptions listed above, the Contractor may negotiate a reasonable change in terms. If the Owner and the Contractor cannot agree on a change in terms, the Owner reserves the right to re-bid or cancel such work.

E. Notification

1. If observed defects are believed to be such that further operations may compromise the structural integrity and/or cause the pipe to become unusable, the Contractor must provide written communication to the Engineer of the observed condition(s) and reason to believe that continued operations may cause substantial damage. The Engineer will then direct the Contractor as to what services, precautions, etc., the Engineer will require of the Contractor. If the contract documents do not address this potential, then the Owner and Contractor will negotiate in good faith, the conditions under which the work is to continue or cease to continue.
2. This exception may only be used to prevent asset damage and shall not be used to eliminate difficult or adverse areas that were previously documented in these documents or by prior written communication with the Owner.

1.06 SUBMITTALS

A. All submittals are due as scheduled. Work will not proceed until all submittals are received and approved. The Owner reserves the right to adjust the due dates of the submittals based on Contractor performance. The Contractor shall label each submittal indicating what is represented, name of Contractor, and project number. All submittals identified as being in error shall be re-performed and corrected at the Contractor's expense.

B. Submittals Required with Bid Documents include:

1. List of references per Part 2 Section 7
2. Documentation of Certification of PACP Software

C. Liability Insurance

1. The Contractor's commercial general liability limits must be not less than **\$500,000.00**, total occurrence limit, and include pesticide or herbicide applicator coverage.
2. Pollution Insurance. At the time of the bid opening, the Contractor shall submit written evidence that he can obtain pollution liability coverage. This coverage shall protect the Contractor, the City, and the City's officers, agents, and employees from claims for damages for bodily or personal injury, sickness or disease, including death, and from claims for damages to property and/or



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the environment, which may arise directly out of the use of chemicals and/or pollution. An “A” rated insurance company shall provide the Contractor’s Liability insurance.

3. Liability Insurance. Seven (7) days prior to the pre-construction meeting, the Contractor shall submit written evidence that it has obtained commercial general liability limits must be not less than **\$500,000.00**, total occurrence limit. Owner shall be named as an additional insured with respect to General Liability, and shall identify additional insured parties, such as the General Contractor, as applicable, with respect to General Liabilities.
- D. Submittals required of the Successful Bidder seven (7) days prior to the Pre-Construction Meeting
1. Name of the project supervisor and resumes
  2. Documentation of NASSCO PACP certification for all CCTV operators, database, and software
  3. Site Safety Plan: A complete site safety plan, specific for the project, must be submitted one week prior to the pre-construction meeting. Work will not begin until an approved site safety plan is in place
  4. Sample inspection CCTV data and video or data from other approved inspection method
- E. Submittals Required for the Pre-Construction Meeting
1. An initial comprehensive schedule of work, see Part 4, Paragraph D (to be approved by the Engineer)
  2. Management Organization: Provide an organization chart depicting the essential organizational elements and senior personnel of the proposed Contractor and the functions and interrelationships of the personnel proposed to provide technical support, project management and supervision for this project. Provide succinct resumes of the personnel proposed to provide technical support and project management for this project. The personnel designated in the management summary for essential positions shall not be changed except with the permission of Engineer. The Engineer will only approve such a change when, in its opinion, the substitute personnel have equal or greater qualifications and experience to those intended to be replaced
  3. Proof that Contractor is an approved/bonded Contractor with the Owner
- F. Submittals Required One Week Prior to Any Cleaning and Televising Work
1. Site specific site safety plan addenda
  2. Entry releases, if applicable
- G. Weekly Submittals
1. Detailed updates to the work schedule will be provided to the Engineer no later than 1:00 p.m. on the Friday preceding the next week’s cleaning and televising work



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2. Electronic data and video/scan submittals, logs, and/or electronic worksheets submitted seven (7) days prior to work. All field paperwork must be submitted before the Contractor's invoice will be processed for payment
3. Corrections to punch list items as required by the Engineer to fulfill the requirements of this specification

H. Final Submittals Prior to Payment

1. Corrections to punch list items as required by the Engineer to fulfill the requirements of this specification

**PART TWO – SPECIAL PROVISIONS**

2.01 OWNER RIGHTS

- A. The Owner reserves the right to stop the work when in the Owner's judgment the Contractor's work or activities are threatening the health and safety of the public or endangering the environment or endangering the waters of the state. Work shall not proceed until a satisfactory resolution has been achieved, according to the Owner.
- B. No Contractor or Subcontractor will perform any work not specifically identified in the work schedule unless approved by the Engineer. Notification of such work must be received no later than 8:00 a.m. on the day the work is to be performed. A list of persons available to be notified will be given at the pre-construction meeting.

2.02 EMERGENCY RESPONSE

- A. The Contractor shall provide direct contact information to the Owner and Engineer. These numbers are intended for the Owner's use in contacting the evening/weekend/holiday emergency work crew for emergencies resulting from the Contractor's actions or lack thereof during this project. This crew shall be responsible for contacting the Owner within one-half hour after the first verbal and electronic notification. If the Contractor's crew has not responded to the site of the emergency within one hour of the first contact, verbal and electronic, the Owner will make all necessary repairs and bill the Contractor for all work performed. Costs related to the emergency response will be incidental to the contract and not measured for payment.

2.03 WORKING HOURS

- A. The Contractor must complete all work such that no homeowner is without sewer service, unless otherwise directed by the Owner. Local noise ordinances or agencies having control over roadway closures may control starting or stopping operations. Prior to starting operations, the Contractor shall advise the Owner of the restrictions imposed by the local agencies.



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- B. The Contractor may be required to workdays, nights, or weekends to achieve the lowest depth flows in the sewer pipes and not conflict with public events.
- C. No work will be allowed on weekends or holidays except at the discretion of the Owner.

**2.04 DECREASE/INCREASE IN SERVICE AND STOP WORK DUE TO INCLEMENT WEATHER**

- A. The Owner, at its option, may increase or decrease any or all service requirements provided for under this contract. The Owner further reserves the right to suspend or stop the performance of any or all the work of this contract due to inclement weather conditions.

**2.05 PRE-CONSTRUCTION MEETING**

- A. Following award of the contract and before starting any work the Contractor, Job Superintendent/Project Manager, and Crew Leader shall meet with the Owner and Engineer. The Contractor will be notified of the date, time, and place of the meeting.
- B. Attendance
  - 1. Owner
  - 2. Owner's Inspector
  - 3. Engineer
  - 4. Contractor's Representative(s)
  - 5. Major Subcontractors
  - 6. Major Suppliers
  - 7. Other, as appropriate
- J. Agenda
  - 1. Distribution and Discussion
    - a. List of major subcontractors and suppliers
    - b. Projected construction schedules
  - 2. Critical work sequencing
  - 3. Major equipment deliveries and priorities
  - 4. Project coordination
    - a. Designation of responsible personnel
  - 5. Procedures and processing
    - a. Field decisions
    - b. Requests for information
    - c. Submittals
    - d. Deliverables
    - e. Change orders
    - f. Applications for payment



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6. Procedures for maintaining record documents
7. Use of premises
  - a. Office, work, and storage areas
  - b. Owner's requirements
8. Construction facilities, controls, and construction aids
9. Procedures for reporting sanitary sewer overflows (SSOs)
10. Temporary utilities

**2.06 CLOSE-OUT PROCEDURES**

- A. Progress Meetings: Project closeout will be completed in phases by project. The Owner and Engineer will hold progress meetings at predetermined intervals, or as determined necessary by the Engineer. Items covered in the meetings include the following.
  1. Punch List: This list will detail all items requiring correction, repair, or improvements to be accepted. The Contractor will address these items within seven (7) calendar days or as specified by the Owner. Failure to complete punch list items will result in a stop work notice and delay of payment until completed to the satisfaction of the Owner.
  2. Reports and Submittals: Final reports, post-tapes and other submittals previously described will be finalized and submitted.
  3. Review of the status of pay estimates.
  4. Issue project worksheets, as necessary.
  5. Work scheduling issues.

**2.07 PRE-QUALIFICATIONS**

- A. The successful bidder must have an onsite field supervisor with a minimum three (3) years of experience specializing in the televising of sewers. A foreman for each crew performing television inspection with a minimum of five (5) years of experience specializing in that type of work may be substituted for the onsite field supervisor requirement. The Contractor shall provide the names, titles, phone numbers and addresses of a minimum of two (2) references that can be used to verify this experience. The references must be contract managers or persons of authority over cleaning and televising work performed by the Contractor.
  1. The Contractor shall also provide five (5) similar projects with inspection equipment as proposed for this project.
  2. The Contractor must have foreman or supervisors meeting all pre-qualifications for the duration of the contract.
- B. PACP Requirements
  1. Current NASSCO PACP certification of all CCTV operators, working on this project, will be required for all CCTV work.
  2. Database shall be a NASSCO-PACP (Current Version) Certified Access Database.
  3. CCTV Software shall be NASSCO-PACP (Current Version) certified.



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4. CCTV inspections (Video and Data Collected) will be delivered entirely in digital format.

**PART THREE – GENERAL PROVISIONS**

**3.01 MAINTENANCE OF TRAFFIC**

- A. The Contractor shall be responsible for maintaining “local” traffic at all times and for notifying the proper authorities regarding the closing of the roads. The Contractor will be responsible for obtaining all permits required for maintenance of traffic.
- B. The Contractor shall not begin work until standard barricades and warning signs are in an acceptable position and the markers and signs conform to the Federal Highway Administration (FHWA) “Manual of Uniform Traffic Control Devices for Streets and Highways” and all applicable state and local requirements. The Contractor assumes all responsibilities and liabilities regarding strict adherence to applicable sections for the maintenance of traffic and public safety as set forth in the FHWA “Manual of Uniform Traffic Control Devices for Streets and Highways”, and other applicable regulations. All traffic control devices must be in place prior to starting work.
- C. The cost of all traffic control devices shall not be paid separately but shall be included in the other price items in the contract.
- D. The Contractor shall always maintain local traffic during all phases of this project in a manner causing the least amount of inconvenience to the abutting property Owners. Temporary driveways, temporary roadways, or run around as may be necessary to provide vehicular access to and from the abutting properties shall be constructed, maintained, and subsequently removed by the Contractor as directed by the Owner.
- E. The portion of the pavement not affected by the work shall be kept clear of all material and equipment.
- F. The Contractor shall hold harmless the Owner and all its representation from all suits, actions, of claims of any character brought on account of any injuries or damages sustained by any person or persons or property in the performance of this contract.
- G. If at any time traffic must be blocked (emergencies only), the Contractor shall notify the nearest fire, police departments and service departments.
- H. The cost of maintenance of traffic shall be incidental to the contract and not measured for payment.



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**3.02 EXISTING UTILITIES**

- A. The Contractor must take the necessary precautions for the protection of any utility encountered on the project or the restoration of any utility damaged during the work.
- B. If an excavation is required, the Contractor shall notify, at least 48 hours before breaking ground, all public or private service corporations having wire, poles, pipes, conduit, manholes, or other structures that may be affected by this operation, including all structures which are affected and not shown on these plans. Owners of underground utilities, which are members of the state's one call service, can be notified by calling. Non-member underground utility Owners must be called directly.
- C. All maintenance, repair, and replacement of existing utilities shall be in accordance with the rules and regulations of the various utility companies having jurisdiction.
- D. All existing storm sewers, driveway drains, surface drainpipes and other property, removed or damaged during construction shall be repaired and reconnected by the Contractor as directed by the Owner at no additional cost to the Owner.

**3.03 REQUEST FOR SUPPLEMENTARY INFORMATION**

- A. It shall be the responsibility of the Contractor to make timely requests of the Owner and Engineer for supplemental information, which should be furnished by the Owner and Engineer under the terms of this contract, and as required in the planning and execution of the work. Such requests may be submitted from time to time as the need approaches, but each shall be filed in ample time to permit appropriate action to be taken by all parties involved to avoid delay.
- B. Each request shall be in writing and list the various items and the latest day by which each will be required by the Contractor. The first list shall be submitted within two (2) weeks after contract award and shall be as complete as possible at that time. The Contractor shall, if required, furnish promptly any assistance and information the Owner or Engineer may require in responding to these requests of the Contractor. The Contractor shall be fully responsible for all delays arising from failure to comply with this section.

**3.04 USE OF PREMISES**

- A. The Contractor shall not trespass upon or in any way disturb private property without first obtaining written permission from the property Owner and/or Owner or Prime Contractor as appropriate to do so. A copy of such written permission shall be furnished to the Owner prior to accessing the site.



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- B. It shall be the Contractor's responsibility to work equipment around poles, trees, or other obstructions and to do so at its own expense.
- C. If the Contractor finds it necessary to obtain additional working area, it shall be the Contractor's responsibility for its acquisition.
- D. The Contractor shall, at no additional expense, restore such property to the original condition in the sole and unfettered opinion of the system Owner. The Contractor must take photographs and/or videos of existing properties prior to disturbance of each property and make a copy available to the system Owner.
- E. All items within the street right-of-way or sewer easement shall be removed, or removed and replaced, or restored as directed by the Owner.
- F. The Contractor shall ensure all employees have a badge or visible identification during any time that they on the project site or within private property. This identification must be worn so that it is readily recognized and readable to the public.

**3.05 PROTECTION OF TREES**

- A. The Contractor shall avoid any unnecessary damage to trees. Branches which overhang the project limits, and which interfere with the operation of equipment shall be tied back to avoid damage, if possible. Where injury to branches is unavoidable, the branches shall be sawed off neatly at the trunk or main branch, and the cut area shall be protected with approved pruning spray immediately. The Contractor at no additional expense shall remove any trees damaged beyond saving and make restitution to the Owner (public or private).

**3.06 FENCING**

- A. Any fences, including hedge and shrubs, that need to be removed to facilitate the work shall be replaced, in kind or with repairs satisfactory to the Owner, at the Contractor's expense. Replacement of fences, hedges, and shrubs shall be considered incidental to the contract and not measured for payment.

**3.07 RESTORATION**

- A. All roadway berms and drainage ditches disturbed by the work shall be restored, reshaped, and graded to drain.
- B. Pavement restoration, if necessary, shall conform to the Owner's regulations, or the Owner's Specifications depending upon who has jurisdiction for the street. Trench backfill and compaction shall be in conformance with the local street restoration jurisdiction.



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- C. The remediation of sunken trenches caused by activities conducted in this contract shall be the Contractor's responsibility. Sunken areas shall be backfilled and compacted to meet adjoining grades; the surface shall be re-seeded or resurfaced with asphalt or concrete matching the existing surfacing.
- D. The Contractor shall restore unpaved areas by seeding and mulching. No direct payment will be made for seeding and mulching.
- E. Driveways shall be restored in accordance with Owner's regulations, or the Owner's Specifications depending upon who has jurisdiction for the driveway.
- F. All disturbed areas shall be restored as nearly as possible to their original condition.
- G. All restoration shall be completed in strict accordance with the appropriate items of the specifications as directed by the Owner.
- H. The cost of all restoration of streets, drives, walks, sod, etc. shall be incidental to the contract and not measured for payment.
- I. Restoration shall be kept current with the project work. Failure to keep restoration of these items completed reasonably close shall result in a stop work notice and delay of payment until such restoration is completed to the satisfaction of the Owner.

**3.08 CLEANUP**

- A. The Contractor shall keep the work area in an uncluttered condition by the frequent removal of debris. The Contractor shall remove all debris and unused material and leave the area in a condition like the condition of the area before any work was performed.

**3.09 PROPERTY DAMAGE**

- A. The Contractor shall immediately investigate all reports of sewage backing up into fixtures served by the sewer section that is being cleaned or televised.
- B. The Contractor will be required to notify the Owner immediately if he causes any damage to private or public property caused by activities related to this contract. The Contractor shall make repairs and/or clean the property immediately in a timeframe that is acceptable to the Owner.



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**3.10 ACCESS TO MUNICIPAL WATER SUPPLIES**

- A. The Owner shall allow access to municipal water as required throughout the course of the work.

**PART FOUR – EXECUTION**

**4.01 GENERAL**

- A. The Contractor shall furnish and maintain, in good condition, all cleaning and televising equipment necessary for proper execution of the work.
- B. Maintaining Flow: It will be the responsibility of the Contractor, throughout the tenure of this contract, to always provide and maintain sufficient flow to pass any flash of storm flow of drainage ditches and prevent any backwater flooding due to obstruction caused by cleaning or CCTV equipment.
- C. Retrieval of Materials and Equipment: It shall be the Contractor's responsibility to remove materials and equipment that has been lodged in the sewer from cleaning, television inspection, or point repair excavations.
- D. Work Schedule. This schedule shall outline the sequence in which the Contractor proposes to conduct its operations and shall be approved by the Owner and the Engineer before work is started. The Contractor shall use a time-scaled logic diagram format. The level of detail of activities shall provide clear, concise communication of the plan of work. At a minimum, activities showing initial mobilization, start-up, cleaning and televising, and any resultant point repairs shall be included.
- E. Original and updated schedules must be provided to the Owner and the Engineer in writing. The software used for producing the schedules must have the capability to tailor the form and format of schedules, and accompanying reports, to the Engineer's requirements.
- F. The Owner may require additional updates to the schedule as changes occur. These additional updates will be submitted to the Owner and the Engineer within 24 hours of the request. Changes to the schedule are subject to approval of the Owner and the Engineer.

**4.02 SEWER CLEANING AND GRINDING OF SERVICE CONNECTIONS**

- A. The Contractor shall provide equipment that is specifically designed and constructed for sewer cleaning. Solids and debris resulting from the cleaning operation shall be collected and removed from the downstream manhole and disposed of at a site selected by the Superintendent of Utilities and approved by



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appropriate jurisdictional personnel. Under no circumstances shall sewage solids be dumped onto the surface, street, or into ditches, inlets, or storm drains.

- B. The Contractor shall use the manufacturer's recommended size tools for the various size pipes. Equipment recommended by the manufacturer to protect the manhole and pipe, such as pull-in slant jack rollers and roller and yoke assembly, roller manhole jacks, etc. shall be utilized.
- C. The Contractor shall dispose of all sanitary debris and material at a location to be provided and directed by the Superintendent of Utilities. The Contractor shall not be reimbursed for disposal costs.
- D. The Contractor is required to submit documentation of the work that is performed, and the type of debris removed, as well as landfill permits and disposal documentation.
- E. The Contractor shall have a CCTV camera in the sewer, during all cleaning operations to include Lateral Cut and Deposit Cut. The camera shall be used for the Contractor's verification that the cleaning equipment is not damaging the public sewer. No submittal is required for this item and the cost for monitoring the cleaning equipment operation shall be included in the associated unit cost for the cleaning item. This in no way waives the Contractor's responsibility for damaging the sewer but is intended to bring the resulting damage to the Contractor's attention so that the operation can be stopped in a timely manner.

**4.03 TELEVISION INSEPTION AND COMPUTERIZED EQUIPMENT**

- A. The Contractor shall use a color pan and tilt camera, or a side wall scanning (panoramic) camera specifically designed and constructed for sewer inspection. Each sewer to be televised shall be suitably isolated to control flow during the inspection. The Contractor shall provide a recording of the televised sewer inspection, locating each sewer service connection entering the sewer.
- B. Lighting for the pan and tilt camera or side wall scanning camera shall provide a clear picture of the entire periphery of the existing sewer.
- C. The pan and tilt camera shall pause, pan, and visually inspect all service connections, pipe ends, and maintenance or structural defects. If utilizing a camera with side wall scanning capabilities, pausing, and panning of each lateral is not necessary during the inspection if the image clearly depicts the inside of the lateral for post processing. If a blockage cannot be removed and hampers the televising of the sewer in one direction then the Contractor shall attempt to complete the section by televising from the other manhole to complete the section, this reversal should immediately follow the initial direction. The Contractor must immediately report the obstruction to the Owner.



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- D. Side wall scanning inspection systems are imaging cameras that are capable of a continuous 360-degree image capture of the wall of the pipeline being inspected. These systems may have one or multiple cameras to capture the complete interior view of the pipeline. Due to the high resolution of the image quality, the inspections may be conducted at a higher speed than color pan and tilt CCTV method. Once the pipeline inspections are completed, the captured images can be linked with a companion software package that allows for identifying and coding defects and features in the pipeline. Typically, these systems provide a fold flat view and a perspective view (typical of CCTV) of the pipeline.
- E. If the image quality is not adequate for post-inspection coding, the Contractor shall be required to repeat the survey at the Contractor's expense.
- F. The Contractor shall perform all CCTV inspections in accordance with NASSCO's Pipeline Assessment Certification Program (PACP). CCTV inspections will be delivered entirely in electronic format. The entire survey shall be recorded in an approved electronic format submitted with electronic links between the data and the video. All television inspection reports shall be within +/- two (2) feet of the measured linear footage between manholes along the existing sewer centerline from the start of pipe to end of pipe. All Owner and PACP required Header information must be fully and accurately entered on all CCTV reports. Work not following these specifications may be rejected for payment and the Contractor may be required to redo the work.
- G. The Contractor shall always provide a PACP certified operator on site during the entire survey. If video is to be coded separately from the actual recording, both the onsite Operator and the individual performing the PACP coding shall be PACP certified. The Contractor shall provide proof of certification prior to commencement of work, prior to a change in personnel involved in data collection, and as requested by the Owner
- H. CCTV Reports, logs, electronic reports, and worksheets must include the following information and conform to the applicable guidelines:
  - 1. CCTV Reports, NASSCO PACP Certified Database, and electronic worksheets must accompany all inspection work.
  - 2. All Owner and NASSCO PACP required header information must be fully and accurately entered on all CCTV reports.

**PART FIVE – PAYMENT FOR WORK**

**5.01 MEASUREMENT AND PAYMENT**

- A. Cleaning of sewers will be measured for payment by the linear foot of the various diameters of sewer cleaned and verified through television inspection. In cases where the sewer is entirely inspected manhole-to-manhole, payments will be



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- based on the measured linear footage between manholes along the existing sewer centerline from the center of the manhole at the unit price submitted on the unit price page.
- B. Lateral Cuts will be calculated for payment based on multiplying the number of laterals satisfactorily completed and meeting the specification governing final acceptance, by the bid unit price for each.
  - C. All invoicing will be by sewer segment and payment and will not be made until all work; including punch list items (rework and additional work) are completed for each sewer segment. Any invoice for sewer segments that are not complete will not be accepted by the Engineer.
  - D. The following items of work will not be measured for payment, but the cost thereof will be considered as incidental to the contract:
    - 1. Data entry, computerized equipment, software, and hardware to submit the required electronic submittals, including the DVDs, records, and logs.
    - 2. Completion of all electronic forms.
    - 3. Removal and disposal of debris.
    - 4. Photographic equipment and supplies used to show sewer pipe and manhole defects.
    - 5. Bypass pumping and flow control where required by the Contractor to perform its work.
    - 6. Providing temporary and final paving at any proposed excavations.
    - 7. Providing temporary and final restoration of grass areas.
    - 8. Emergency after-hours response.
    - 9. Re-televising and re-cleaning following a point repair completed by the Contractor.
    - 10. Demobilization and mobilization because of suspension of work.
    - 11. Updates to the schedule as required by the Owner.
    - 12. Right of entry access to private property.
    - 13. Dye testing of service connections to meet the CCTV specification.
  - E. For the Engineer to track costs of the contract properly and accurately, the Contractor shall submit the final invoice on each project within 30 days after the completion of the project.
  - F. Performance and Payment Bond: The bond securing the performance of the contract shall be effective for the full maximum period of the contract including the optional renewal period(s) specified. The bond amount indicated shall be deemed adequate surety for the initial and optional renewal periods. The cost of performance surety shall be treated as an overhead expense and shall be included in the bid amounts. The Owner shall not pay the cost of surety as a direct bill item.



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The following is an example of a Header Field Checklist requiring non-mandatory PACP fields within the specification. The specification writer is responsible for determining which additional fields are required.

**MANDATORY HEADER FIELD CHECKLIST**

Field #	Header Field
1	Surveyed By
1a	Certificate No.
2	Sheet Number
3	Pipe Segment Ref. ("GM ___")
4	Date
5	Time
6	Street
7	City
8	Location Details
9	Upstream MH No.
10	Downstream MH No.
11	Direction
12	Total Length
13	Length Surveyed
14	Media Label
15	Purpose
16	Sewer Category
17	Date Cleaned
18	Weather
19	Additional Info

**CCTV CONDITION SURVEY BID SHEET**

END OF SECTION



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT  
CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

**PART ONE – GENERAL**

**1.01 SCOPE OF WORK**

- A. The Contractor shall locate, uncover, open, and perform visual inspections of the project manholes and record any defect discovered. For manholes under pavement, to facilitate manhole cover removal and riser ring installation, the Contractor shall carefully chip or chisel out the pavement overlain on the manhole casting and cover, to expose the outer diameter of the casting so that the cover may be removed. The Contractor shall remove all pavement from the manhole cover.
- B. The visual inspection shall include surface photo, manhole cover and frame, barrel, walls, inverts, and all appurtenances.
- C. The nature of the inspections shall be to verify the physical condition of the manhole and to provide a permanent record of the existing condition as it relates to dimensions, materials, obstructions, breakage, connections, and deterioration. Inspections may be performed by personnel entry or from the surface utilizing pole mounted camera equipment to visually inspect the barrel, cone, wall, bench, pipe seals, invert conditions, and conditions of connecting pipes.
- D. Upon completion of the inspection and once all needed data is gathered, the Contractor shall replace the manhole cover. For manholes under more than 1/2" of pavement, the Contractor shall fill and patch the damaged asphalt with asphalt patching material, using plywood and truck tire to compact the patch (temporary "throw and go" patch).
- E. For manholes under more than 1/2" of pavement, the Contractor shall furnish and install a riser ring based on the required dimensions gathered during the inspection. Upon delivery of the riser ring, the Contractor shall remove and properly discard the "throw and go" patch material, install the riser ring, and replace the manhole cover.
- F. After installation of the riser ring and cover, the Contractor shall patch and level any damaged asphalt around the perimeter of the riser ring with asphalt patching material, compacting same with a tamping tool.

**1.02 REQUIREMENTS**

- A. The Contractor shall inspect each manhole's surroundings and each manhole interior using visual means and a digital camera for documentation.
- B. Each inspection shall be recorded on EPA manhole inspection forms as appear at the end of this section.
- C. All inspection forms shall be scanned and promptly submitted as .pdf files to the ENGINEER.
- D. All inspection data shall be entered into a NASSCO Manhole Assessment Certification Program (MACP) compliant database. The database shall be submitted along with the scanned .pdf files, all digital photographs in .jpg format or approved equal, and all digital videos in a Microsoft Windows compatible format.



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

- E. The inspection photographs / videos, report documents, and inspection database shall be in accordance with NASSCO MACP.
- F. Contractor shall maintain a copy of all report material. The Contractor shall provide comments as necessary to fully describe the existing condition of the manhole on the inspection forms.
- G. Contractor shall be responsible for modifications to equipment and/or inspection procedures to achieve City report requirements.
- H. No work shall commence prior to approval of the submitted material by the Engineer. Once accepted, the report material shall serve as a standard for the remaining work.
- I. This being a “per manhole” unit price contract, all data must be complete before each inspection qualifies for payment. The CONTRACTOR shall be required to obtain any inspection and assessment data found incomplete, missing, or unclear by the ENGINEER prior to payment.

**1.03 QUALITY ASSURANCE**

- A. Refer to the “**General Scope and Special Provisions**” for Contractor’s Qualification requirements.
- B. Each field inspection supervisor shall be NASSCO PACP certified. Use of MACP/PACP certified technicians to review/document defects in the office (post inspection/assessment) is not acceptable.
- C. The Inspection Contractor must have an internal quality assurance/quality control program in place and all inspection data shall be subjected to the procedures prior to submittal to the Engineer. The Engineer will perform QA/QC audits on submitted data.
- D. QA/QC shall be performed by NASSCO PACP certified personnel.

**1.03 SUBMITTALS**

- A. The following deliverables shall be submitted at the completion of inspection:
  - 1. Electronic version (.pdf) of the manhole inspection reports
  - 2. Populated NASSCO MACP manhole inspection database (.mdb or Excel) saved on thumb drive or portable hard drive
  - 3. Inspection digital photographs in .jpg format or approved equal saved on thumb drive or portable hard drive
  - 4. QA / QC report
- B. The above deliverables shall be submitted to the Engineer for approval.
- C. The manhole inspection reports and database shall be in accordance with NASSCO MACP.

**1.04 NOTIFICATION**

The Contractor shall notify the City’s Superintendent of Utilities a minimum of 48 hours prior to performing any inspection work. The City may have a representative



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT  
CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

present during part or all the inspections. No payment will be made for inspections performed without proper notification.

**PART TWO – PRODUCTS**

2.01 DIGITAL CAMERA FOR REMOTE INSPECTIONS

All manhole photographs required as part of this specification shall be obtained using a digital camera with a minimum 12-megapixels.

**PART THREE – EXECUTION**

3.01 GENERAL

- A. The inspection crew shall mobilize to the site of the manhole inspection and immediately establish traffic control measures per the City and Tennessee Department of Transportation (TDOT) requirements as well as any measures required to protect pedestrians. The crew shall inspect each manhole and record required information.
- B. A diligent effort shall be made to locate all structures. Metal detectors shall be used to locate buried manholes and manholes under pavement. Any buried sewer or water appurtenances located by the metal detector incidental to the investigation such as air relief valve boxes, water valve boxes, etc., shall marked using orange utility-type marking paint.
- C. Manholes under pavement shall be adjusted to street grade according to the **“Adjustment of Existing Manholes Under Pavement”** section of these Detailed Specifications.
- D. Contractor shall notify the Engineer and City’s Superintendent of Utilities weekly with a list of those manholes that could not be fully inspected, documenting the specific reason, such as “unable to locate”, “surcharged”, “could not open”, “obscured access”, or other. All pertinent information available shall be recorded including area photo, address, etc. The Engineer and City’s Superintendent of Utilities may arrange to have some, or all these manholes made accessible for full inspection. The Engineer and City’s Superintendent of Utilities will notify Contractor of the status and may authorize re-inspection provided the Contractor is still working on-site.



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT  
CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

**3.02 MANHOLE GENERAL INFORMATION**

Once the manhole is located, the following information shall be recorded on the Manhole Inspection Form (template is in the Appendix), using approved MACP codes where applicable. All available information shall be collected and recorded for those manholes that could not open, surcharged, etc.

- A. Manhole ID (found on Manhole Inspection Exhibits)
- B. Inspection date
- C. Inspector's name
- D. Location (street name and nearest address)
- E. Manhole depth (inches)
- F. Rim to grade (height in inches)
- G. Overall rating (1 = new – 5 = failing)
- H. Infiltration and inflow rating (0 = none – 5 = gushing)
- I. Area photo (using Manhole ID)
- J. Internal photo (using Manhole ID)
- K. Existing conditions
- L. Pre-cleaning method
- M. Location Using GIS coordinates
- N. Material
- O. Cover size (top surface diameter in inches)
- P. Barrell size (diameter in inches)
- Q. Direction of effluent
- R. Number of influents

**3.03 MANHOLE CONDITION INFORMATION**

The inspection crew shall complete all fields within the manhole condition / hydraulics sections of the Manhole Inspection Form, using approved MACP codes where applicable. The following information shall be collected:

- A. Cover fit / condition (cover to frame fit, including number of vent holes)
- B. Ring and frame fit / condition
- C. Cone and riser condition
- D. Barrel condition
- E. Step condition
- F. Bench condition
- G. Channel condition
- H. Cover type (solid, vented, bolted)
- I. Cover material (cast iron, concrete, plastic)
- J. Wall material (brick, concrete) / diameter
- K. Indications of surcharge
- L. Buildup issues
- M. Flow description



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT**  
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**3.04 MANHOLE DEFECT INFORMATION**

The inspection crew shall determine the types of defects within the manhole, document each defect on the manhole form and take a photograph of each defect. The manhole barrel, cone, wall, bench and channel will be inspected for structural integrity, signs of I/I and the presence of roots. All documentation shall follow NASSCO MACP standards. Each defect will be documented on the inspection form with the following information:

- A. Defect number
- B. Component of manhole containing defect
- C. Defect code (using approved MACP codes)
- D. Image Reference (using Manhole ID)

**3.05 CONNECTING PIPE DETAILS**

Each pipe entering and exiting the manhole shall be photographed where possible and inspected to determine diameter, pipe material, debris levels and rim to invert distance (to 0.1 feet). The pipe inspection will include the following information:

- A. Pipe photo (using approved file naming structure)
- B. Pipe direction (incoming or outgoing)
- C. Pipe clock positions (6 = outgoing)
- D. Pipe diameter
- E. Pipe material (using PACP codes)
- F. Rim to invert distance (measured to nearest 1/10th of a foot)
- G. Pipe special condition (drops, force mains, etc. using approved MACP codes)
- H. Debris depth
- I. Connecting structure number if manhole or cleanout, service line clock position, stub out clock position, etc.
- J. Pipe seal condition (using approved MACP codes)
- K. Pipe seal roots (using approved MACP codes)
- L. Observed pipe defects, obstructions, roots, etc. (using PACP codes)

**3.06 MANHOLE SKETCH**

The inspection crew shall complete the “**Standard Precast Manhole Existing Measurements Form**” found in the **Appendices** noting all connecting pipes. Any special observations or notes may be added to the form.

Influent and effluent lines in each manhole shall be compared to the existing map and corrections noted in the sketch section of the field form.

**3.07 NOTIFICATION OF EMERGENCY CONDITIONS**

Inspection crews shall immediately notify the City and/or on-site inspector of any defects posing imminent danger to the public (missing lids, covers broken during



## **INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT**

### **CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

inspection, sink holes, etc.) and any observed pipe blockages or potential overflow conditions.

#### **3.08 COMPLETION**

Once the inspection is complete the field crew shall make certain the ring is clean and does not have any debris preventing a proper cover fit. The manhole lid shall be replaced, and any displaced items moved back into place.

A list of manholes that could not be fully inspected, along with the problem explanation, shall be forwarded to the Engineer and the City's Superintendent of Utilities weekly throughout the inspection work.

If the contractor has completed accessible inspections, and the Engineer authorizes, then Contractor may be required to re-mobilize at the same unit price and complete the requested inspections. All re-inspections will be at the same contracted unit price.

Any map updates shall be consolidated and forwarded to the Engineer with the submitted inspections.

#### **3.09 PHOTOGRAPH REQUIREMENTS**

A. During each inspection, the following series of photographs shall be taken:

1. **Area Photograph** - During the inspection, a photograph shall be taken of the manhole cover showing location within the roadway, shoulder or easement as appropriate. Photographs shall be taken of any indications of previous overflows such as water marks and paper or other debris typical of sewer overflows. Surface photographs shall be oriented in the direction of the outgoing pipe to show the pipeline cover and easement condition. The area photographs should show the manhole visible in the foreground where possible. A minimum of one area photo is required.
2. **Internal Photograph** - Take a photograph of the manhole interior in plan view showing the general arrangement of the incoming and outgoing sewers, manhole walls and other appurtenances. The internal condition photograph shall be oriented with the direction of the outgoing main line flow at the bottom of the photograph (6:00 position). A minimum of one internal photograph is required.
3. **Manhole Defect Photographs** - During manhole inspections digital photographs shall be taken of all defects. Photographs must clearly and accurately show each defect and correspond to defects and photo numbers logged on the manhole inspection form. A minimum of one photo for each observed defect is required.
4. **Connecting Pipe Photographs** - The camera should then be pointed into all incoming and outgoing pipes where possible to capture general conditions



## **INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT**

### **CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

within the pipes. Any obvious blockages or defects should be noted using PACP defect codes. A minimum of one photo of each incoming or outgoing pipe is required.

- B. During inspections manholes shall be free of steam, fog, water vapor or other conditions that will impact the quality of photographs.
- C. All photographs shall adequately capture the manhole conditions and details of defects. Lighting and camera quality shall provide a clear, in-focus picture of the manhole interior, manhole defects, and manhole. The lighting shall provide uniform light, free from shadows or hot spots.
- D. The images shall be kept electronically, copied to an external hard drive, and submitted with the inspection forms per paragraph 3.06. Photographs shall be named according to the photograph naming conventions included herein.
- E. All digital photographs shall be referenced on the manhole inspection form and electronic spreadsheet/database.
- F. All digital photographs shall be renamed in accordance with the following photo file naming convention.
  - 1. Area Photo = Manhole ID, A, Photo Number, jpg  
Example: 3965002A0001.jpg  
Manhole: 39650002  
A=Area Photo  
Photo No.0001
  - 2. Internal Photo = Manhole ID, I, Photo Number, jpg  
Example: 3965002I0001.jpg  
Manhole: 3965002  
I=Internal Photo  
Photo No.0001  
(Note: Photo oriented with the outgoing pipe on the bottom)
  - 3. Manhole Defect Photo = Manhole ID, M, Photo Number, jpg  
Example: 3965002M0015  
Manhole: 3965002  
M=Manhole Defect Photo  
Photo No. 0015
  - 4. Pipe Photo = Manhole ID, P, Photo Number, jpg  
Example: 3965002P0002.jpg  
Manhole: 3965002  
P=Pipe Photo  
Photo No. 0002

#### **3.10 MANHOLE NUMBERING, INSPECTION FORMS AND DEFECT CODES**

The Contractor shall use the City manhole numbering system when performing the inspections for this project. Manhole numbers will be provided by the City.

Defect codes shall conform to those specified in the NASSCO MACP specification.



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT  
CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

**3.11 SITE RESTORATION**

After inspecting manholes in an area, the Work site shall be cleaned and restored to pre-Work conditions. If manhole is buried and exposed, then restore site by placing material back over exposed manhole. No re-sodding is anticipated or included in the pricing.



**INSPECTION OF EXISTING MANHOLES UNDER PAVEMENT  
CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTION**

**3.12 DELIVERABLES**

The Contractor will be required to submit the following deliverables at the completion of inspection.

- A. Scanned Field Inspection Reports to include:
  - 1. Inspection session header information (see required fields above)
  - 2. Component observations
  - 3. Manhole inspection details including defects observed and photo image references
  - 4. Connecting pipe details
  - 5. Manhole plan view sketch
  - 6. Completed Manhole Riser Order Form where provided.
  - 7. Format:
    - a. Adobe Acrobat PDF files – 1 report PDF per manhole
    - b. File name: <MH ID> <Date (year\_mo\_day format)>.PDF  
Example: 30060002\_2010\_02\_16.pdf
- B. Inspection digital photograph in City approved format and resolution, and assigned file names in accordance with the City standard.
- C. Electronic Inspection Data stored and exported in City approved NASSCO Manhole Assessment and Certification Program (MACP) compliant Microsoft Access database (.MDB) version 4.4, or Excel file delivered on DVD or portable hard drive.
- D. GIS location data as geodatabase file or shape file in a digital file format compatible for use with ESRI ArcMap.
- E. Marked up field maps detailing map corrections and/or discrepancies noted during inspection.
- F. All digital files shall be submitted on DVD or portable hard drive, labeled as follows:  
DVD/Hard drive Labels - Typed labels shall be attached to the face of each DVD.  
The typed index labels shall include the following information:
  - 1. Content (Manhole Inspections)
  - 2. Contractor name
  - 3. Purpose of Survey (CIP R/R)
  - 4. Tributary Pump station number
  - 5. Manholes included (listing of manholes using City standard Asset Numbers)
  - 6. Date of survey
  - 7. Contract Number / Delivery Order Number (if applicable)
  - 8. QA/QC report including listing of manhole inspections reviewed and results.

END OF SECTION



**DETAILED SPECIFICATIONS**  
**ADJUSTMENT OF EXISTING MANHOLES UNDER PAVEMENT**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**  
**PART ONE – GENERAL**

This item shall consist of adjusting sanitary sewer manhole frames found under pavement and furnishing all labor, materials, and other items necessary to bring the frames to street grade.

**PART TWO – PRODUCTS**

- A. Adjustable Steel Riser Rings shall be used to adjust existing manhole frames under pavement to street grade. Acceptable steel adjustment rings shall be as supplied by American Highway Products, Massillon, Ohio, EJ, Maryville, Tennessee, or approved equal.

**PART THREE – EXECUTION**

**3.01 CONSTRUCTION REQUIREMENTS**

- A. Adjustable Steel Riser Rings shall be installed on manholes currently under pavement where the grade of the existing manhole is determined to be more than 3/4" below street grade. Typical adjustable steel riser ring heights start at 3/4" and may be ordered in 1/4" increments. The finished grade of the lid shall be within a 1/4" tolerance of the surrounding pavement and shall provide a smooth riding surface.
- B. For manholes under pavement, to facilitate manhole cover removal and riser ring installation, the Contractor shall carefully chip or chisel out the pavement overlain on the manhole casting and cover, to expose the outer diameter of the cast ring so that the cover may be removed. The Contractor shall remove all pavement and debris from the manhole cover.
- C. During the course of manhole inspection, the Contractor shall carefully obtain the dimensions required by the riser ring manufacturer. The Contractor shall measure the existing ring and manhole cover according to the manufacturer's requirements during the manhole inspection and prior to ordering from the manufacturer. A typical "Manhole Riser Order Form" is included in these specifications, but the Contractor shall gather any required data required by the actual vendor of the riser rings on that vendor's order form.
- D. Upon completion of the inspection of the manholes under pavement, the Contractor shall fill and patch the damaged asphalt with asphalt patching material, using plywood and truck tire to compact the patch (temporary "throw and go" patch).
- E. The Contractor shall order and provide each riser ring based on the required dimensions gathered during the inspection.
- F. Upon delivery of the riser ring, the Contractor shall remove and properly discard the "throw and go" patch material as needed to remove the manhole cover and access the existing ring.



**DETAILED SPECIFICATIONS**  
**ADJUSTMENT OF EXISTING MANHOLES UNDER PAVEMENT**  
**CONTRACT 320 – SANITARY SEWER PIPE CELANING AND INPSECTIONS**

- G. The Contractor will remove all the material build-up and foreign matter of any kind on all surfaces that the manhole riser will touch.
- H. Upon insertion of the riser ring, the Contractor will expand the linkage until riser is tight and fully engaged all around the circumference to insure a reliable installation. The Contractor shall install the adjusting ring according to the manufacturer's specifications and recommendations. The ring shall be adequately tightened to ensure proper operation under normal traffic conditions.
- I. Replace the manhole cover and verify that the grade of the lid is within a 1/4" tolerance of the surrounding pavement and provides a smooth riding surface.
- J. After installation of the riser ring and cover, the Contractor shall patch and level all damaged asphalt around the perimeter of the riser ring with asphalt patching material, compacting same with a tamping tool. The Contractor shall fill in any needed asphaltic concrete to ensure a proper, neat, and long-lasting installation. The Contractor will be responsible for any repair or maintenance due to poor workmanship.
- K. All installations shall be inspected and approved by a City inspector

**3.02 EQUIPMENT**

The Contractor shall provide the necessary tools and equipment to complete all Work as described above.

**3.03 MEASUREMENT**

The number of existing manholes under pavement whose rings are raised and accepted will be measured for payment per each.

END OF SECTION



**GPS DATA COLLECTION AND DELIVERY STANDARDS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**PART ONE – GENERAL**

1.01 PURPOSE

- A. The purpose of this document is to establish the minimum GPS standards to be used by the City of Tiptonville personnel involved in mapping activities as well as individuals and groups submitting digital data to the City.

1.02 SCOPE

- A. The following addresses only ground collected data and does not apply to aerial GPS procedures. The standards apply to current technology and are subject to revision as GPS equipment develops.

**PART TWO – GPS DATA COLLECTION AND DELIVERY STANDARDS**

2.01 GPS RECEIVER

- A. To ensure that the appropriate type of GPS receiver is matched to the mapping application, an understanding of receiver capabilities and limitations is required. There are basically three classes of GPS receivers:
  - 1. Recreational Grade: These have an accuracy within five to twenty meters. These GPS receivers usually do not have the ability to "post-process" collected data, but usually can perform real time correction using Wide Area Augmentation System (WAAS). GPS receivers can be used to navigate to a specific area and/or compile uncorrected GPS data, using associated third-party software to convert the collected data directly into GIS supported data formats. Most modern "smart phones/tablets" fall into this category.
  - 2. Mapping Grade: These have an accuracy from sub-meter to five meters. These GPS receivers can log raw GPS data, enabling these GPS-collected data to be post-processed utilizing desktop GPS software and allowing locations to be refined or corrected to a higher level of precision than inherent in the raw data. This category of GPS receiver also can communicate with a base station, store attributes of features, use a data dictionary and upload data from the GPS device to a PC.
  - 3. Survey or High Accuracy Grade: These include instruments with associated software that can achieve one-centimeter relative accuracy. These are used by land surveyors primarily for boundary, topographic, and geodetic surveys, photogrammetry, and other activities requiring high accuracy. Specialized training is needed to use this equipment.
- B. The GPS receiver used to collect data for the City of Tiptonville must be of **Mapping Grade or better**. Smart phones and tablets are prohibited. The GPS receiver must:



## **GPS DATA COLLECTION AND DELIVERY STANDARDS**

### **CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

1. Routinely achieve 1 meter or better horizontal accuracy, using either real time or post processed differential corrections.
2. Operate in a 3D mode, where the receiver requires signals from a minimum of four satellites to determine a 3D (latitude, longitude, and elevation) location (a fix).
3. Allow the storage of position fixes for features that are being mapped. When mapping point features, the receiver must be able to store a sample of position fixes (the minimum number depending on the quality of the receiver) for the feature. The receiver must have enough data storage capacity for a typical day's worth of data collection.
4. Be user configurable for critical settings, including DOP, SNR, elevation mask, and logging rate.
5. Produce and store data in a format compatible with the base station data used to perform the differential corrections or have the capability to receive real-time corrections from the base station.

#### **2.02 FIELD DATA COLLECTION PARAMETERS**

- A. GPS field work must be performed by staff that has had training in GPS and GIS or has a surveying or mapping background. Field staff must have a thorough understanding of GPS basic concepts, and receiver operation. How a receiver's critical parameter settings affect data collection must be very well understood. The staff must also have familiarity with the types of features that are to be located and must be able to recognize/interpret features in the field. To achieve the City's target accuracy, all collected GPS data must be differentially corrected, either in real time or in a post process step.
- B. Along with the following parameters, the City suggests standing at a collection location for 5-10 seconds to evaluate the quality of signal (PDOP and number of satellites) before gathering points.
  1. All position fixes must be determined with 4 or more satellites. Manual 3D or overdetermined 3D (5 satellites minimum) modes are acceptable. 2D fixes (using only 3 satellites) are not acceptable. 3D positions generated from 2D fixes supplemented with user entered elevations are also not acceptable.

#### **2.03 PROCESSING OF GPS FIELD DATA**

- A. All GPS data collected for the City must undergo some post processing steps using GPS processing software before the data can be used to generate a GIS layer. The GPS processing software must be able to download GPS data files from the GPS receiver and perform differential corrections. In addition, it must allow exporting the corrected data to a City GIS compatible format (File Geodatabase or Shapefile), in the correct coordinate system. Refer to the section below for specific information on the required coordinate system. See the City of Tiptonville's Geospatial Data Delivery Standards for more information on data requirements for File Geodatabases and Shapefiles.



**GPS DATA COLLECTION AND DELIVERY STANDARDS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

- B. GPS Base Stations for Post Processed Differential Corrections: For post processed differential corrections, several resources exist for GPS base station data in Tennessee.
- C. Output to GIS
1. As stated previously, the City prefers GIS data submittals to be in either Esri File Geodatabase or Shapefile formats. The GPS processing software must allow for exporting to one of these formats. Refer to the section below for specific information on the required coordinate system. See the City of Tiptonville's Geospatial Data Delivery Standards for more information on data requirements for File Geodatabases and Shapefiles.
  2. In addition to feature coordinate and field entered attribute data, some GPS processing software packages are capable of automatically generating attribute information for exported features. This information can provide users of the GIS data an indication as to the quality of the GPS position fixes that were used to generate the features. If the GPS processing software allows, the following generated attributes must be produced for exported features:

<b>Point Features</b>	<b>Line and Polygon Features</b>
Maximum PDOP	Maximum PDOP
Receiver Type	Receiver Type
Correction Status	Correction Status
Date of Collection	Date of Collection
Time of Collection	Time of Collection
Data File Name	Data File Name
Total Positions	Total Positions
Filtered Positions	Filtered Positions
Standard Deviation	Average Horizontal Precision
Horizontal Precision	Worst Horizontal Precision
* Elevation (MSL in feet)	* Average Vertical Precision
* Vertical Position	* Worst Vertical Precision
* Only necessary if elevation data is required by project	

- D. Elevation Data: If elevation data is required by the project, it will be referenced to the North American Vertical Datum of 1988 (NAVD 88) vertical geodetic datum. Elevations must be generated as orthometric heights (relative to mean sea level) determined using the GEOID99 (Continental US) geoid conversion model. Conversions from other geoid conversion models are not acceptable.

## 2.05 NAMING CONVENTION

- A. It is important that GPS and GIS data and attribute field names in said data delivered to the City of Tiptonville Enterprise GIS follow the same naming convention already applied to all existing data. Not all the following rules may



## **GPS DATA COLLECTION AND DELIVERY STANDARDS**

### **CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

apply to all datasets, for example, if the delivery is for a singular dataset, but it is important to understand the geospatial naming convention already in place to alleviate any confusion or added work upon delivery of the data.

- B. **Start Data and Field Names with Alphabetical Characters:** Many processing workflows that GIS data are subjected to are unable to handle objects that start with numbers or special characters. Avoiding names starting with a number also helps to better sort the display of objects in the Enterprise GIS.
- C. **Do Not Include Spaces, Dashes, or Other Special Characters:** Many GIS software processes cannot handle spaces or any kind of special character in the file names and/or in field names. Avoid causing problems for the data later down the line by eliminating any special characters. Underscores, however, do not cause problems and can be used in the place of dashes and/or spaces.
- D. **Do Not Use Prefix or Suffix for Data Type:** Do not use prefixes like 'tbl' for tables, nor 'fc' for feature classes. This is redundant as tables and feature classes are symbolized differently in the Enterprise GIS.
- E. **Do Not Use Geometry Type as Suffix:** The City of Tiptonville Enterprise GIS provides a preview of the geometry type for each GIS dataset. Therefore, adding a feature type indicator in the name is generally unnecessary. However, data may occasionally be represented in alternative forms such as showing a feature as a polygon and as a point. In such a case, the data with the most logical shape should take on the base name without a geometry type, while the data with the alternative type should be augmented with a feature type suffix separated by an underscore (Point, Poly, Line, Anno), e.g., "Buildings" and "Buildings\_Point".
- F. **Avoid Using Reserved Words:** Using reserved words for the underlying DBMS could easily result in unexplained errors. Avoid using words like Order, File, Range, etc., on their own. Using plurals for feature class names reduces this risk.
- G. **Limit Names to 10 Characters or Less (Shapefile Only):** Shapefiles do not support names for the shapefile nor attribute field names longer than 10 characters; otherwise, they are truncated, and the true name can be misunderstood.
- H. **Always Provide Alias Names for Fields:** Setting an alias for field names, especially field names that are cryptic or abbreviated, is the best way to maintain useful information and provide benefits in multiple areas. As the shapefile format does not support field name aliases, for data delivered to the City of Tiptonville in that format, be sure to include field aliases as a part of the metadata. This is a required element of metadata.



**GPS DATA COLLECTION AND DELIVERY STANDARDS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**2.06 SPATIAL REFERENCE**

- A. The City of Tiptonville prefers all GPS data be delivered in the City's standard Spatial Reference as noted below. However, the City will accept GPS data in a standard table format collected directly in decimal degrees if collected at a minimum of 8 significant digits (for example, -121.363469, 37.948884). See the Delivery Format section for further information regarding acceptable forms of GPS data in tables.
1. Projection: State Plane
  2. Zone: Tennessee, FIPS Zone 4100
  3. Units: US Survey Feet
  4. Horizontal Datum: North American Datum (NAD) 1983 adjusted to the High Accuracy Reference Network (HARN)
  5. Vertical Datum: North American Vertical Datum (NAVD) 1988

**2.07 DELIVERABLES**

If GPS data collection work is being performed by an outside agency, final deliverables will include:

- A. All GPS field data files, both uncorrected and corrected versions, must be submitted. If field data was collected in real time differential mode, then there will not be uncorrected files, and only the real time corrected files are necessary. If edits are made to corrected files (i.e., fixes deleted or offset), copies of both edited and unedited are to be submitted.
- B. All GPS to GIS export files, using Tennessee State Plane South Coordinates, in the NAD 83 (HARN) horizontal geodetic datum, in US survey feet units, in either Esri File Geodatabase or Shapefile.
- C. All GPS processing log files pertaining to post process differential correction and GIS export (if produced by the GPS processing software).
- D. GPS Data dictionary files, defined for project attribute storage.
- E. Metadata. Refer to the next section and see the City of Tiptonville's Metadata Standards for more information.
- F. Project Report. The contractor must submit a project report that includes the following information. The agency may be excused from including report items indicated with an asterisk with prior consent of the City of Tiptonville's GIS Manager prior to delivery.
1. An introduction describing the project. This would include the project name, the names of City programs involved, the purpose and goals of the project, the project's study area, and data collection (including accuracy) requirements.\*



**GPS DATA COLLECTION AND DELIVERY STANDARDS**  
**CONTRACT 320 – SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

2. A project timeline depicting significant milestones or achievements during the course of the project. Examples might include: awarding of contract, meetings with City staff, GPS field data collection/processing phase, significant delays, interim deliverables and status reports, final deliverables and status report; etc.).\*
  3. Profiles on contractor staff performing project work, including level of education, degrees held, GPS qualifications and/or certifications, and prior GPS work experience.\*
  4. A list of GPS hardware and processing software used for the GPS data collection/processing phase of the project. The hardware listing will include GPS receiver models (including firmware version), dataloggers, antennas, external sensors, laser offset measuring devices, etc. The GPS processing software, mapping software, and any related data management software will be listed, along with version number.
  5. A list of GPS base stations used for the project. If local base stations (stations other than CORS) were used, the setup procedure must be described in detail, along with then operation, collection parameter settings, and what steps were used to establish the reference position.
- G. These files should all be in a compressed format and be organized into a logical directory structure. For example, the files could be organized by date of data collection, and then into subdirectories for Data and Export. Uncorrected, corrected field data files, post process differential correction log files, and data dictionary files would reside in the Data subdirectory. GIS export files and associated export log files would reside in the Export subdirectory.

**2.08 METADATA**

- A. Avoid using fields in the database to store metadata about the feature class, e.g., a Date Loaded field. Such information is required in the metadata and therefore superfluous in the attribute table. Only exceptions are to either capture row specific metadata, e.g., Modified By, where each record may have different values, or where the origin source of the individual features may vary and need to be tracked. In the second case, the metadata should also document the fact that there are multiple data origins.
- B. Any exemption requests from any part of the metadata requirement must be submitted to the City of Tiptonville GIS Coordinator for decision before delivery.



## Overall Gravity Sanitary Sewer System Layout

**Joel B. Spaulding & Company, Inc.**  
**Consulting Engineers**  
3322 West End Avenue, Suite 106  
Nashville, TN 37203  
  
Bruce Spaulding, PE | J.B. Spaulding, PE, LEED AP

## 2019 CDBG SS Improvements Pipe Cleaning and Inspections Overall Inspection Exhibit

**The City of Tiptonville  
Lake County, TN  
130 S. Court Street  
Tiptonville, TN 38079**

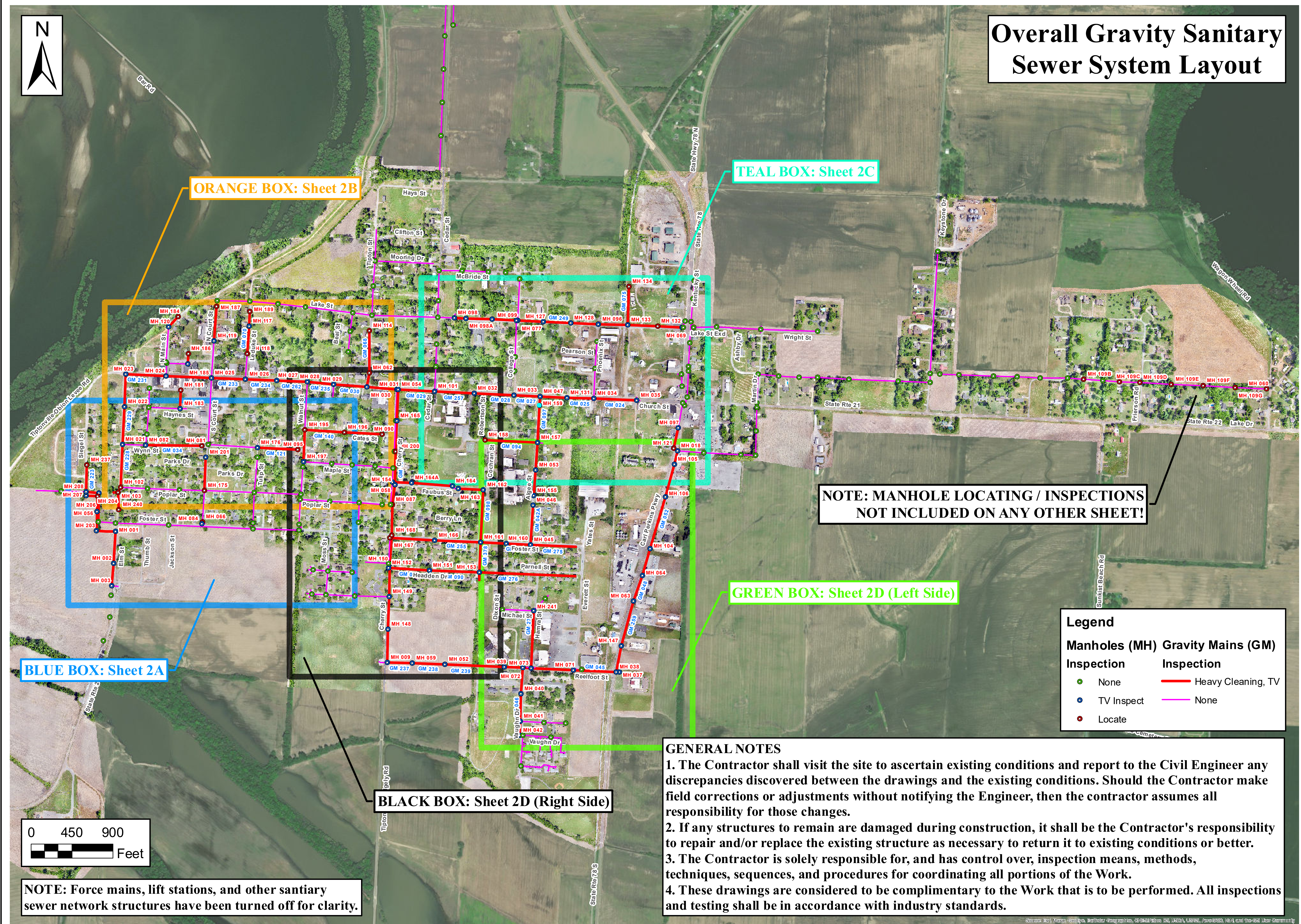


## PLAN DESCRIPTION

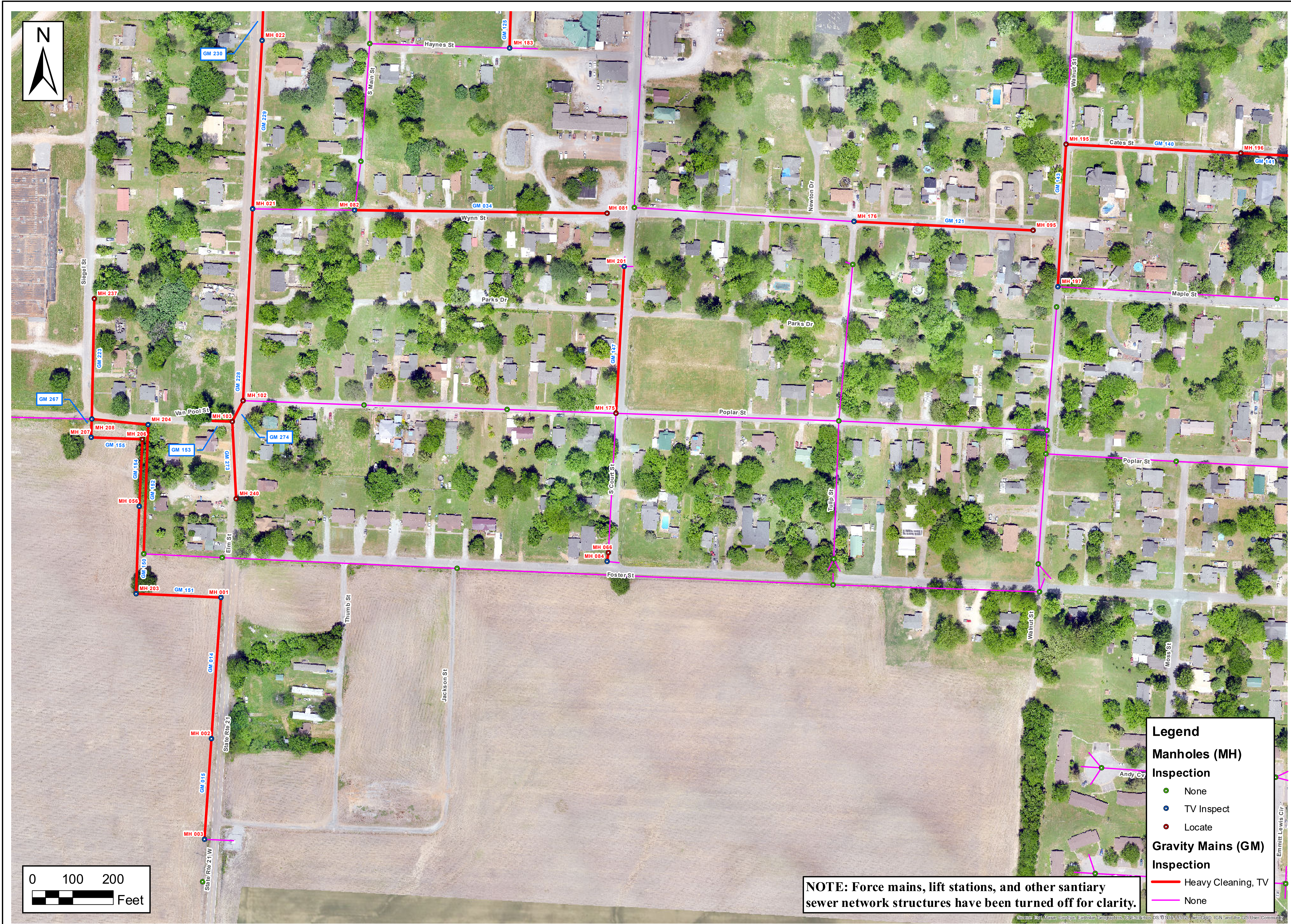
DATE		DESCRIPTION	
BS	JBS	BS	
SIGN	DRAWN	CHECKED	
SALE (H): <b>As Shown</b>			
SALE (V):			
BS No.:	<b>Contract 320</b>		
DATE:	<b>February 2022</b>		

Specs Pg. 146

EET **1** OF **2**







**NOTE: Force mains, lift stations, and other sanitary sewer network structures have been turned off for clarity.**

**Legend**

**Manholes (MH)**

**Inspection**

- None
- TV Inspect
- Locate

**Gravity Mains (GM)**

**Inspection**

- Heavy Cleaning, TV
- None

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Bruce Spaulding, PE | J.B. Spaulding, PE, LEED AP

The City of Tiptonville  
Lake County, TN  
130 S. Court Street  
Tiptonville, TN 38079

PLAN DESCRIPTION		
DATE	DESCRIPTION	
JBS	JBS	BS
DESIGN	DRAWN	CHECKED
SCALE (H): As Shown		
SCALE (V):		
JOB No.:	Contract 320	
DATE:	February 2022	
Specs Pg. 147		
SHEET	2A	2

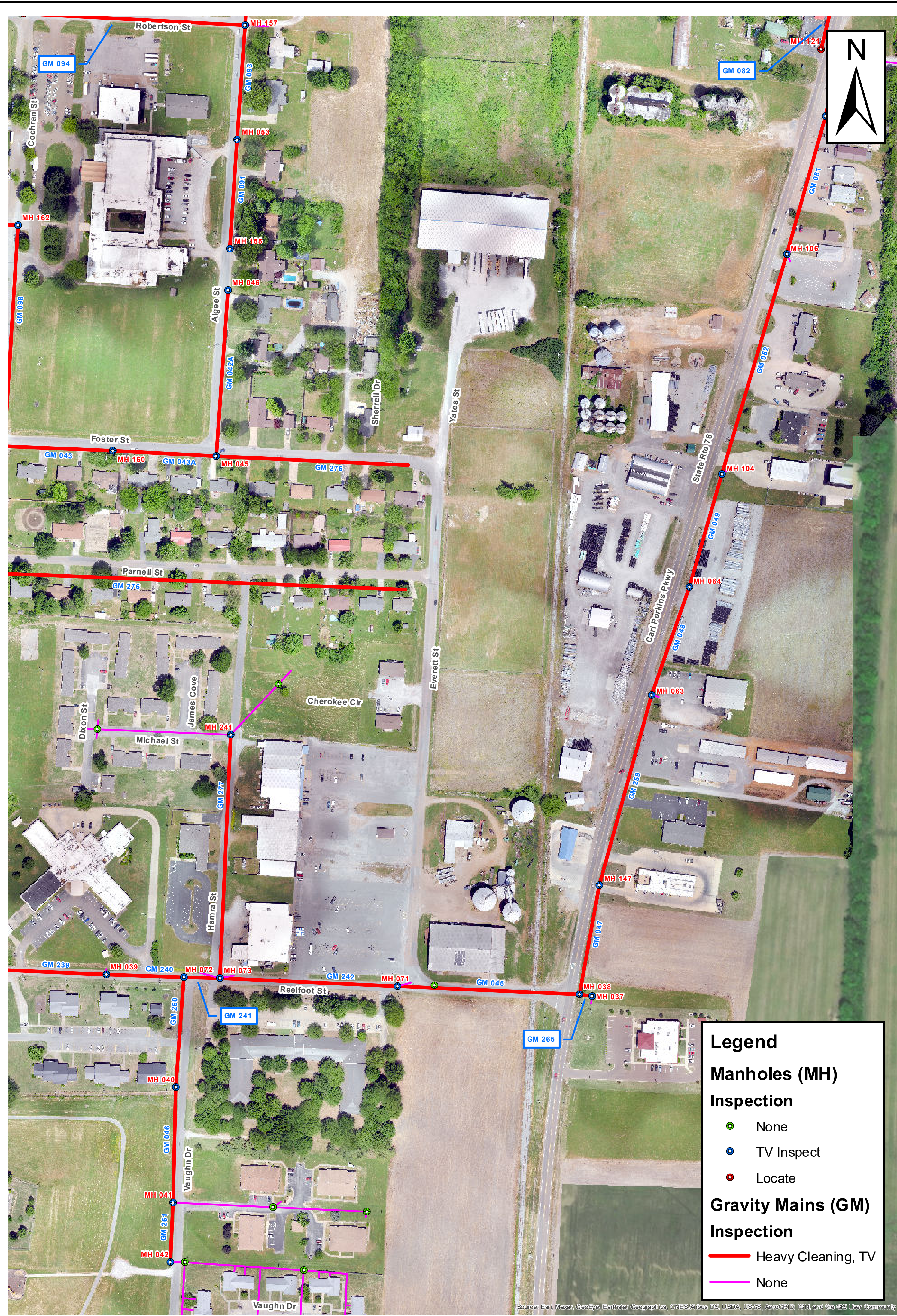
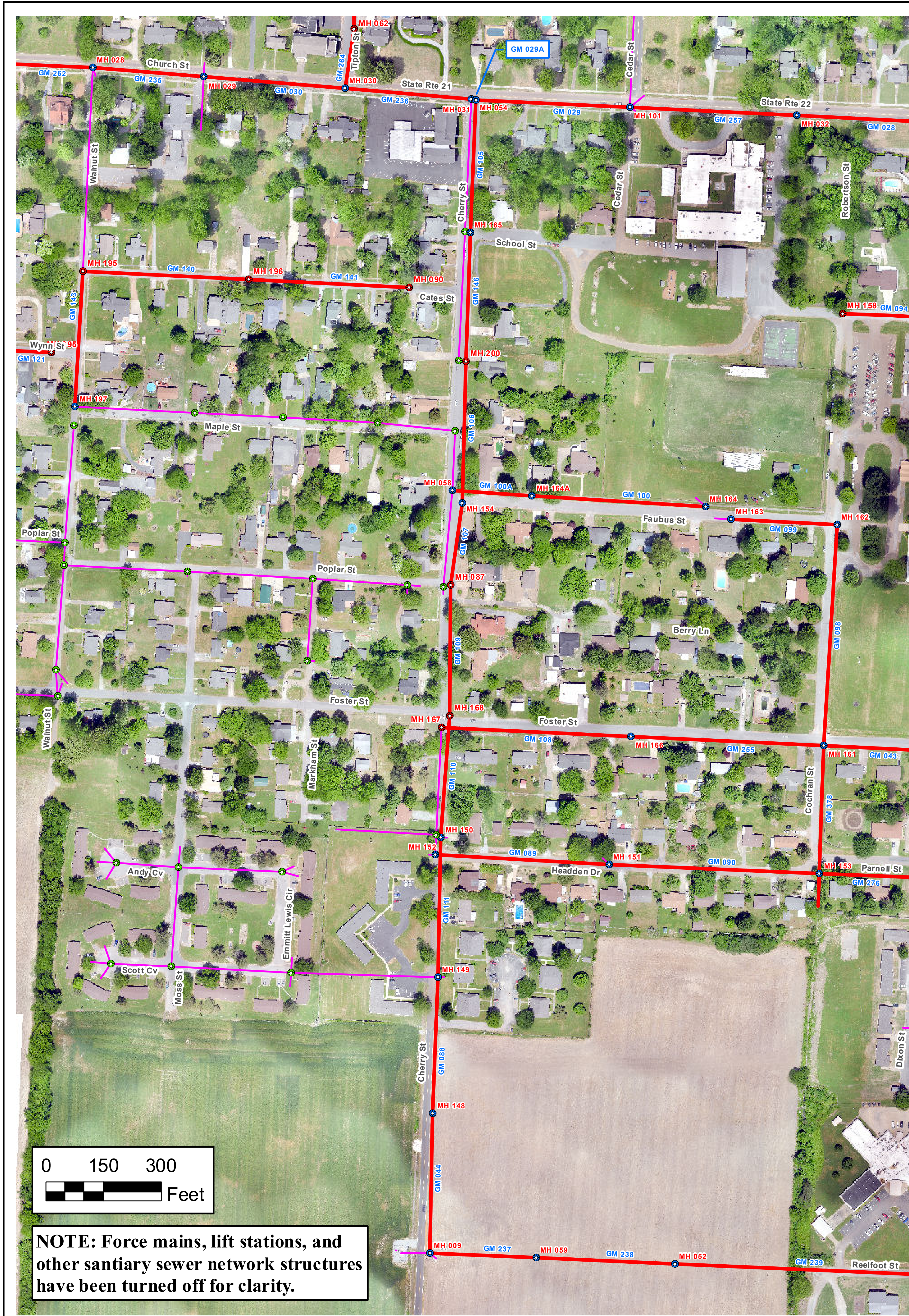












**Legend**

**Manholes (MH)**

Inspection

- None
- TV Inspect
- Locate

**Gravity Mains (GM)**

Inspection

- Heavy Cleaning, TV
- None

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**2019 CDBG SS Improvements  
Pipe Cleaning and Inspections  
Detailed Inspection Exhibit**

**The City of Tiptonville  
Lake County, TN  
130 S. Court Street  
Tiptonville, TN 38079**

**Legend**

**Manholes (MH)**

Inspection

- None
- TV Inspect
- Locate

**Gravity Mains (GM)**

Inspection

- Heavy Cleaning, TV
- None

PLAN DESCRIPTION

DATE	DESCRIPTION
JBS	JBS
DESIGN	DRAWN
SCALE (H):	As Shown
SCALE (V):	
JOB No.:	Contract 320
DATE:	February 2022
Specs Pg.	150

**2D** **2**

SHEET OF



**DETAILED INSPECTIONS - SCOPE OF WORK (SHEET 1 OF 2)**  
**CONTRACT 320 - SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**Light Cleaning and TV Inspection of Mains**

Street	From Manhole	To Manhole	Dia.	Length (ft)	Included Sanitary Sewer Mains (GM #)
Access Rd. Off Lake St.	133	134	8"	428	075
Algee St.	155	047	8"	1,094	091, 093, 097, 395
Algee St.	046	045	8"	432	042A
Cherry St.	054	009	10"	3,002	105, 146, 106, 107, 109, 110, 111, 088, 044
Church St.	035	023	12"	5,627	024, 025, 026, 027, 028, 257, 029, 029A, 236, 030, 235, 262, 234, 233, 232, 231
Cochran St.	153	162	8"	907	378, 098
Cochran St.	153	South to End	8"	85	379
Easement	204	205	12"	320	152
Elm St.	023	South to End	12"	1,500	230, 229, 228, 274, 273
Elm St.	103 Unlocated	West to End	15"	345	153
Elm St.	001	003	12"	599	014, 015
Faubus St.	164	058	8"	660	100, 100A
Faubus St.	163	162	8"	276	099
Foster St.	045	East to End	8"	500	275
Foster St.	045	167	8"	1,547	043A, 043, 255, 108
Hamra St.	241	073	8"	635	277
Headden St.	153	152	8"	1,001	090, 089
Hwy. 78	038	018	10"	2,525	045, 242, 241, 240, 239, 238, 237
Lake St.	069	098	10"	2,505	077, 076, 020, 250, 249, 248, 247, 246A, 245, 246
Parnell St.	153	East to End	8"	1,054	276
Reelfoot St.	037	009	10"	2,555	265
Roberston St.	157	158	8"	577	094
Van Pool Rd.	207	North to End	15"	343	267, 223
Van Pool Rd. Easement	203	001	12"	210	151
Van Pool Rd. Easement	207	206	12"	127	155
Van Pool Rd. Easement	206	203	12"	380	154, 150
Vaughn Dr.	042	072	8"	742	261, 046, 260
<b>TOTAL</b>				<b>29,976</b>	



**DETAILED INSPECTIONS - SCOPE OF WORK (SHEET 2 OF 2)**  
**CONTRACT 320 - SANITARY SEWER PIPE CLEANING AND INSPECTIONS**

**Locate Manhole Using TV Camera from Nearest Manhole, Including Light Cleaning of Main and Full TV Inspection of Main**

Street	MH to Locate	TV from MH	Dia.	Length (ft)	Comments	Included SS Main (GM #)
Tipton St	062	030	8"	157	Downstream to upstream inspection	264
Tipton St	114	062	8"	463	Downstream to upstream inspection	068
S. Court St	066	084	8"	22	May not connect to MH 84	123
Wynn St	081	082	8"	624	Downstream to upstream inspection	034
Wynn St	095	176	8"	444	Downstream to upstream inspection	121
Leduke St	118	117	6"	306	Downstream to upstream inspection	070
S.R. 78	121	097	8"	235	Downstream to upstream inspection	082
Robertson St	158	157	8"	577	Downstream to upstream inspection	094
S. Court St	175	201	8"	364	MH 84, 177, and 93 may also be used	147
Haynes St	181	183	8"	202	Downstream to upstream inspection	125
N. Main St	184	120	8"	152	May not connect to MH 120	130
Tank to N. Main St	186	185	6"	113	Downstream to upstream inspection	132
N. Court St	187	119	8"	382	Downstream to upstream inspection	072
Leduke St	189	117	6"	158	Downstream to upstream inspection	073
Walnut St	195	197 or 28	8"	353	MH 28 may also be used	143 or 140
Cates St	196	195	8"	432	MH 195 must be located and uncovered	140
Cates St	090	196	8"	418	MH 196 must be located and uncovered	141
Elm at Van Pool	206	207	12"	127		155
<b>TOTAL</b>				5,529		



City of Tiptonville, TN  
Sanitary Sewer System - Manhole Inspection Form

<b>Manhole ID:</b>	<input type="text"/>	<b>Rating (1 to 5):</b>	<input type="text"/>	<b>Area Photo:</b>	<input type="text"/>
			(1 = new ... 5 = failing)		(Y / N)
<b>Date:</b>	<input type="text"/>				
<b>Inspector:</b>	<input type="text"/>	<b>I / I Rate:</b>	<input type="text"/>	<b>Internal Photo:</b>	<input type="text"/>
<b>Street:</b>	<input type="text"/>		(0 = none ... 5 = gushing)		(Y / N)
<b>Address #:</b>	<input type="text"/>				
<b>Depth:</b>	<input type="text"/>				
<b>Rim to Grade:</b>	<input type="text"/>				

<b>Conditions:</b>	Dry <input type="checkbox"/>	Wet <input type="checkbox"/>	Standing Water <input type="checkbox"/>	Frozen <input type="checkbox"/>
<b>Pre-Cleaning:</b>	<input type="text"/>			

<b>DETAILS</b>				
<u>Location:</u>	<u>Wall Material:</u>	<u>Cover Size:</u>	<u>Barrel Size:</u>	<u>Direction Effluent:</u>
Roadway <input type="checkbox"/>	Brick <input type="checkbox"/>	22" <input type="checkbox"/>	48" <input type="checkbox"/>	(N, NE, E, SE, S, SW, W, NW)
Gutter <input type="checkbox"/>	Block <input type="checkbox"/>	24" <input type="checkbox"/>	60" <input type="checkbox"/>	
Paved Alley <input type="checkbox"/>	Concrete <input type="checkbox"/>	30" <input type="checkbox"/>	72" <input type="checkbox"/>	
Unpaved Alley <input type="checkbox"/>	Lined <input type="checkbox"/>	36" <input type="checkbox"/>	84" <input type="checkbox"/>	
Grass <input type="checkbox"/>	Other <input type="checkbox"/>	Other (desc.) <input type="text"/>	96" <input type="checkbox"/>	<b># of Influent:</b>
Other (desc.) <input type="text"/>			Other <input type="text"/>	<input type="text"/>

<b>CONDITION</b>				
<u>Cover:</u>	<u>Ring &amp; Frame:</u>	<u>Cone &amp; Riser:</u>	<u>Barrel:</u>	<u>Steps:</u>
Serviceable <input type="checkbox"/>	Serviceable <input type="checkbox"/>	Serviceable <input type="checkbox"/>	Serviceable <input type="checkbox"/>	Serviceable <input type="checkbox"/>
Loose <input type="checkbox"/>	Loose <input type="checkbox"/>	Cracked/Broken <input type="checkbox"/>	Cracked/Broken <input type="checkbox"/>	Unsafe <input type="checkbox"/>
Below Grade <input type="checkbox"/>	Displaced <input type="checkbox"/>	Corroded <input type="checkbox"/>	Corroded <input type="checkbox"/>	Missing Any <input type="checkbox"/>
Damaged <input type="checkbox"/>	Missing Grout <input type="checkbox"/>	Misaligned <input type="checkbox"/>	Misaligned <input type="checkbox"/>	Corroded <input type="checkbox"/>
Sealed <input type="checkbox"/>	Raise <input type="checkbox"/>	Infiltration <input type="checkbox"/>	Infiltration <input type="checkbox"/>	None <input type="checkbox"/>
Holes (#) <input type="text"/>	Lower <input type="checkbox"/>	Roots at Joints <input type="checkbox"/>	Roots at Joints <input type="checkbox"/>	Number <input type="text"/>
	Inflow? <input type="checkbox"/>	Inflow? <input type="checkbox"/>	Inflow? <input type="checkbox"/>	

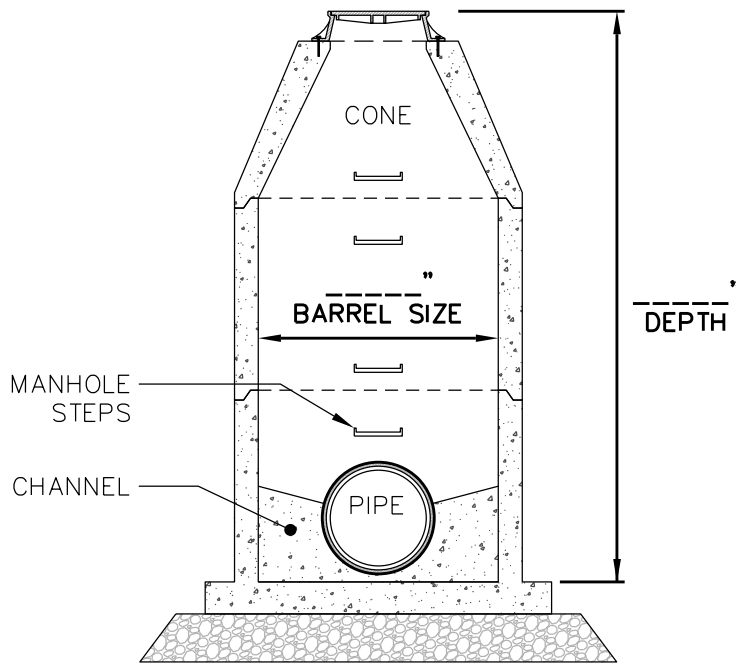
<u>Bench:</u>	<u>Channel:</u>	<u>Cover Type:</u>	<u>Cover Material:</u>
Serviceable <input type="checkbox"/>	Serviceable <input type="checkbox"/>	Solid <input type="checkbox"/>	Cast Iron <input type="checkbox"/>
Cracked/Broken <input type="checkbox"/>	Obstructed <input type="checkbox"/>	Vented <input type="checkbox"/>	Concrete <input type="checkbox"/>
Bad base joint <input type="checkbox"/>	Bad joints <input type="checkbox"/>	Bolted <input type="checkbox"/>	Plastic <input type="checkbox"/>
	Roots at connection <input type="checkbox"/>	Other (desc.) <input type="text"/>	Other (desc.) <input type="text"/>

<b>HYDRAULICS</b>		
<u>Indications of</u>	<u>Buildup Issues:</u>	<u>Flow Description:</u>
<u>Surcharge?:</u>		
None <input type="checkbox"/>	Grease <input type="checkbox"/>	Steady <input type="checkbox"/>
Minor <input type="checkbox"/>	Debris <input type="checkbox"/>	Pulsing <input type="checkbox"/>
Yes, need followup <input type="checkbox"/>	Silt <input type="checkbox"/>	Turbulent <input type="checkbox"/>
	Infiltration, if yes, note below <input type="text"/>	Surcharging <input type="checkbox"/>
	(None, Minor, Some, Excessive)	Sluggish <input type="checkbox"/>

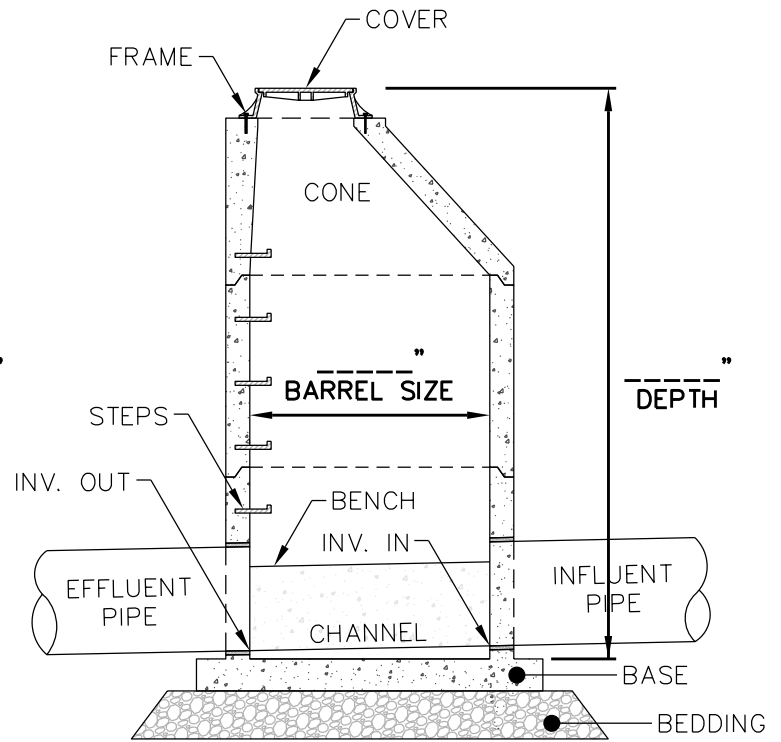
<b>COMMENTS:</b>	<div style="border: 1px solid black; height: 100px; width: 100%;"></div>
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MANHOLE ID: \_\_\_\_\_



SECTION A-A



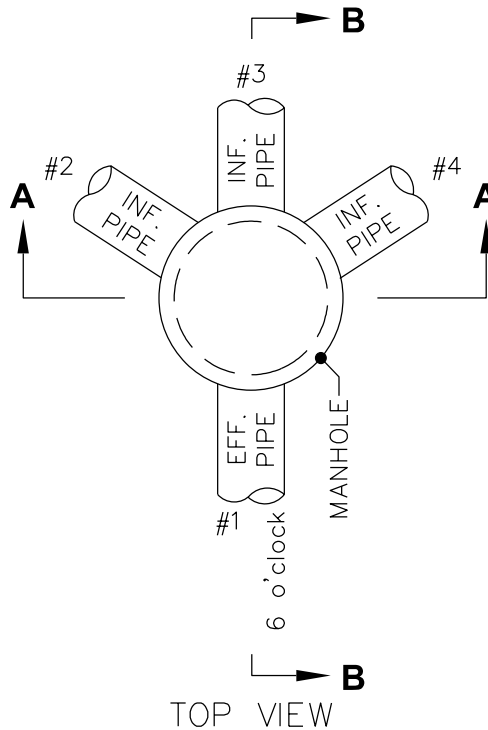
SECTION B-B

**CONE DETAILS:**

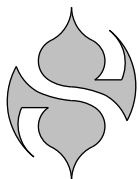
DIAMETER (CIRCLE ONE):      24"    or    36"

OPENING TYPE (CIRCLE ONE): ECCENTRIC    or    CONCENTRIC

PIPE #1:      \_\_\_\_\_ o'clock  
Material:      \_\_\_\_\_  
Diameter:      \_\_\_\_\_  
Rim to Inv.:      \_\_\_\_\_  
PIPE #2:      \_\_\_\_\_ o'clock  
Material:      \_\_\_\_\_  
Diameter:      \_\_\_\_\_  
Rim to Inv.:      \_\_\_\_\_



PIPE #3:      \_\_\_\_\_ o'clock  
Material:      \_\_\_\_\_  
Diameter:      \_\_\_\_\_  
Rim to Inv.:      \_\_\_\_\_  
PIPE #4:      \_\_\_\_\_ o'clock  
Material:      \_\_\_\_\_  
Diameter:      \_\_\_\_\_  
Rim to Inv.:      \_\_\_\_\_



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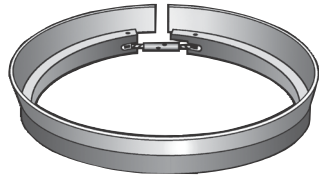
Sanitary Sewer Pipe  
Cleaning and Inspection

Standard Manhole  
Existing Measurements Form

Contract 320  
Specs Page 154

City of Tiptonville  
Lake County, TN  
130 S. Court St.  
Tiptonville, TN 38079

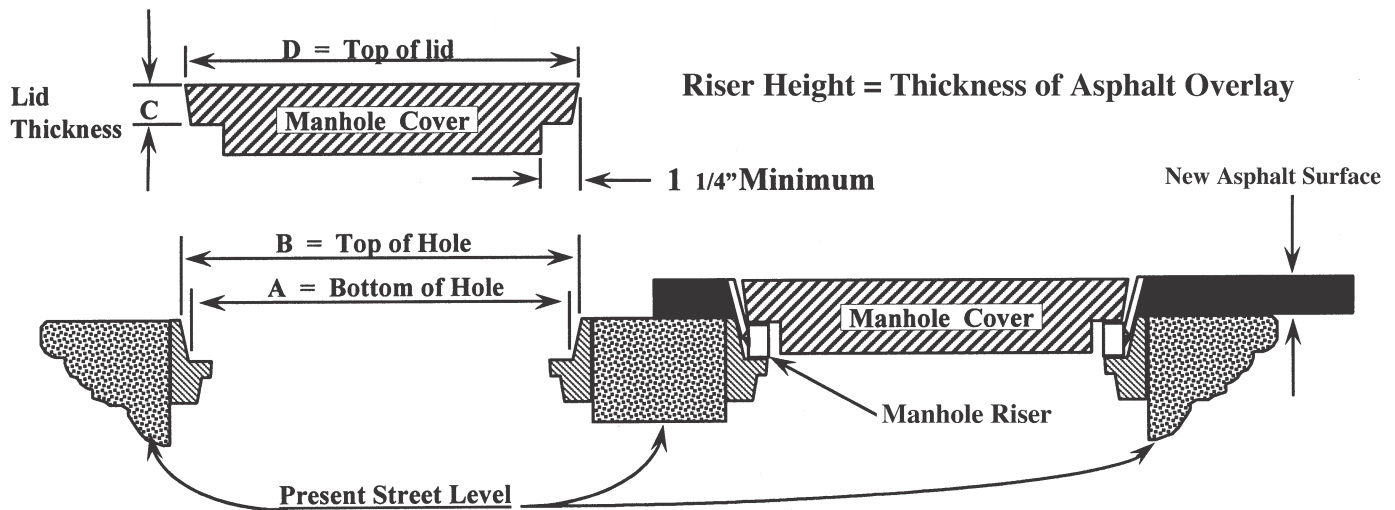




# Typical Manhole Riser Order Form



**Note: Sample only. Contractor shall use form required by selected vendor.**  
Specify Dimensions A, B, C, D And The Thickness of Asphalt When Ordering



**\*\* NOTE: The difference between A and B can not be more than 1/4" per 1" lid thickness \*\***  
Dimensions in INCHES ONLY please.

Riser Qty.	A Bottom of Hole	B Top of Hole	C Lid Thickness	D Top of Lid	Riser Height	Description (if desired)
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	
	/ "	/ "	/ "	/ "	/ "	

FABRICATED TO DIMENSIONS PROVIDED, NO RETURNS



# NASSCO'S PIPELINE ASSESSMENT & CERTIFICATION PROGRAM (PACP)©

## Section 4—Continuous Defect Coding

### "TRULY" 4-1

"Truly" continuous defects run along the sewer without any interruption for more than three feet (1 meter).

- Examples:  
- Longitudinal Fractures  
- Longitudinal Cracks

### "REPEATED" 4-1

"Repeated" continuous defects occur at regular intervals along the sewer. These occur at pipe joints and include:

- Encrustation  
-Open Joints  
-Circumferential Fractures

### Code Changes in Version 6.0.1

Added:

Buckling Wall (KW), Buckling Dimpling (KD), and Buckling Inverse Curvature (KI)

## Section 5—Structural Defect Coding (Module 6A)

### C CRACK 5-1

- CL Longitudinal 5-2  
CC Circumferential 5-2  
CM Multiple 5-2  
CS Spiral 5-2  
CH Hinge 5-2

### F FRACTURE 5-7

- FL Longitudinal 5-7  
FC Circumferential 5-7  
FM Multiple 5-7  
FS Spiral 5-7  
FH Hinge 5-7

### B BROKEN 5-15

- BSV -Soil Visible 5-15  
Beyond Defect  
BV V -Void Visible 5-15  
Beyond Defect

### H HOLE 5-17

- HSV -Soil Visible 5-17  
Beyond Defect  
HV V -Void Visible 5-17  
Beyond Defect

### D DEFORMED 5-19

- DV Deformed 5-19  
Vertically (brick)  
DH Deformed 5-19  
Horizontally (brick)

### X COLLAPSE 5-23

- XP Pipe Collapse 5-23  
XB Brick Collapse 5-23

### J JOINT 5-26

- JO Joint Offset 5-26  
(Displaced)  
JS Joint Separated 5-26  
(Open)  
JA Joint Angular 5-26

### S SURFACE DAMAGE 5-31

- SRI Roughness Increased 5-31  
SRI - M - Mechanical  
SRI - C - Chemical  
SRI - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SAV Aggregate Visible 5-31  
SAV - M - Mechanical  
SAV - C - Chemical  
SAV - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SAP Aggregate Projecting 5-31  
SAP - M - Mechanical  
SAP - C - Chemical  
SAP - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SAM Aggregate Missing 5-31  
SAM - M - Mechanical  
SAM - C - Chemical Attack  
SAM - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SRV Reinforcement Visible 5-31  
SRV - M - Mechanical  
SRV - C - Chemical Attack  
SRV - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SRP Reinforcement Projecting 5-31  
SRP - M - Mechanical  
SRP - C - Chemical Attack  
SRP - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SRC Reinforcement Corroded 5-31  
SRC - M - Mechanical  
SRC - C - Chemical Attack  
SRC - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SMW Missing Wall 5-32  
SMW - M - Mechanical  
SMW - C - Chemical Attack  
SMW - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SSS Surface Spalling 5-32  
SSS - M - Mechanical  
SSS - C - Chemical Attack  
SSS - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SZ Other 5-32  
SZ - M - Mechanical  
SZ - C - Chemical Attack  
SZ - Z - Not Evident

### S SURFACE DAMAGE 5-31

- SCP Corrosion 5-32  
(metal pipe)  
\*no modifiers used

### K BUCKLING 5-45

- KW Wall 5-45  
KD Dimpling 5-45  
KI Inverse Curvature 5-45

### LF LINING FAILURE 5-49

- LFD Detached Lining 5-49  
LFDE Defective End 5-49  
LFB Blistered Lining 5-49  
LFCS Service Cut Shifted 5-49  
LFAC Abandoned Connection 5-49

### LF LINING FAILURE 5-49

- (continued)  
LFOC Overcut Service 5-49  
LFUC Undercut Service 5-49  
LFBK Buckled Lining 5-49  
LFW Wrinkled Lining 5-49  
LFAS Annular Space 5-49

### LF LINING FAILURE 5-50

- LFBU Bulges 5-50  
LFDC Discoloration 5-50  
LFDL Delamination 5-50  
LFRS Resin Slug 5-50  
LFPH Pinholes 5-50  
LFZ Other 5-50

### WF WELD FAILURE 5-67

- WFL Longitudinal 5-67  
WFC Circumferential 5-67  
WFM Multiple 5-67  
WFS Spiral 5-67  
WFZ Unidentified 5-67

### RP POINT REPAIR 5-71

- RPR Pipe Replaced 5-69  
RPR - D - Defective 5-69  
RPP Patch Repair 5-69  
RPP - D - Defective 5-69

### RP POINT REPAIR 5-71

- RPL Localized Pipeliner 5-69  
RPL - D - Defective 5-69  
RPZ Other 5-69  
RPZ - D - Defective 5-69

### BRICKWORK 5-77

- DB Displaced 5-75  
MB Missing 5-75  
DI Dropped Invert 5-75

### BRICKWORK 5-77

- MM Missing Mortar 5-75  
S -Small 5-75  
M -Medium 5-75  
L -Large 5-75

Updated November  
2010



# NASSCO'S PIPELINE ASSESSMENT & CERTIFICATION PROGRAM (PACP)©

## Section 6—Operational and Maintenance (Module 6B)

<b>D DEPOSITS 6-1</b> <b>DA Attached 6-1</b> DAE -Encrustation 6-2 DAGS -Grease 6-2 DAR -Ragging 6-2 DAZ -Other 6-2	<b>D DEPOSITS 6-1</b> <b>DS Settled 6-1</b> DSF -Fine 6-2 DSGV -Gravel 6-2 DSC -Hard/Compacted 6-2 DSZ -Other 6-2	<b>D DEPOSITS 6-1</b> (continued) <b>DN Ingress 6-1</b> DNF -Fine 6-3 (silt & sand) DNGV -Gravel 6-3 DNZ -Other 6-3	<b>R ROOTS 6-7</b> <b>RF Fine 6-7</b> RFB -Barrel 6-7 RFL -Lateral 6-7 RFC -Connection 6-8	<b>R ROOTS 6-7</b> <b>RT Tap 6-7</b> RTB -Barrel 6-7 RTL -Lateral 6-7 RTC -Connection 6-8	<b>R ROOTS 6-7</b> <b>RM Medium 6-7</b> RMB -Barrel 6-7 RML -Lateral 6-7 RMC -Connection 6-8	<b>R ROOTS 6-7</b> <b>RB Ball 6-7</b> RBB -Barrel 6-7 RBL -Lateral 6-7 RBC -Connection 6-8
<b>I INFILTRATION 6-13</b> <b>IS Stain 6-13</b> IW Weeper 6-13 ID Dripper 6-13 IR Runner 6-13 IG Gusher 6-13	<b>OB OBSTACLES/ OBSTRUCTIONS 6-19</b> <b>OB B Brick or Masonry 6-19</b> <b>OBM Pipe Material in Invert 6-19</b> <b>OBI Object protruding through wall 6-19</b>	<b>OB OBSTACLES/ OBSTRUCTIONS 6-19</b> <b>OBJ Object wedged in joint 6-19</b> <b>OBC Object through connection/junction 6-19</b> <b>OBP External Pipe Cable 6-19</b>	<b>OB OBSTACLES/ OBSTRUCTIONS 6-19</b> <b>OBS Built into structure 6-20</b> <b>OBN Construction Debris 6-20</b> <b>OBR Rocks 6-20</b> <b>OBZ Other 6-20</b>	<b>V VERMIN 6-31</b> <b>VR Rat 6-31</b> <b>VC Cockroach 6-31</b> <b>VZ Other 6-31</b>	<b>G GROUT TEST &amp; SEAL 6-33</b> <b>GTP Grout Test Passed 6-33</b> GTP - J - Joint 6-33 GTP - L - Lateral 6-33 <b>GTF Grout Test Failed 6-33</b>	<b>G GROUT TEST &amp; SEAL 6-33</b> <b>GTU Grout Test Unable 6-33</b> GTU - J - Joint 6-33 GTU - L - Lateral 6-33 <b>GRT Grout Test Location 6-33</b>

## Section 7—Construction Features Coding (Module 6C)

<b>T TAP 7-1</b> <b>TF Factory Made 7-1</b> TFI -Intruding 7-2 TFA -Active 7-2 TFC -Capped 7-2 TFB -Abandoned 7-2 TFD -Defective 7-2	<b>T TAP 7-1</b> <b>TB Break In/Hammer 7-2</b> TBI -Intruding 7-2 TBA -Active 7-2 TBC -Capped 7-2 TBB -Abandoned 7-2 TBD -Defective 7-2	<b>T TAP 7-1</b> <b>TS Saddle 7-2</b> TSI -Intruding 7-2 TSA -Active 7-2 TSC -Capped 7-2 TSB -Abandoned 7-2 TSD -Defective 7-2	<b>T TAP 7-1</b> <b>TR Rehabilitated 7-2</b> TRI -Intruding 7-2 TRA -Active 7-2 TRC -Capped 7-2 TRB -Abandoned 7-2 TRD -Defective 7-2	<b>IS INTRUDING SEALING MATERIAL 7-9</b> <b>ISSR Sealing Ring 7-9</b> ISSRH -Hanging 7-9 ISSRB -Broken 7-9 ISSRL -Loose 7-9	<b>IS INTRUDING SEALING MATERIAL 7-9</b> <b>ISGT Grout 7-9</b> <b>ISZ Other 7-9</b>
<b>L LINE 7-11</b> (of sewer) LL Left 7-11 LLU Left Up 7-11 LLD Left Down 7-11 LR Right 7-11	<b>L LINE 7-11</b> (of sewer) LRU Right Up 7-11 LRD Right Down 7-11 LU Up 7-11 LD Down 7-11	<b>A ACCESS POINT 7-13</b> <b>AMH Manhole 7-13</b> <b>AWA Wastewater Access 7-13</b> <b>ADP Discharge Point 7-13</b> <b>ATC Tee Connection 7-13</b>	<b>A ACCESS POINT 7-13</b> <b>AOC Other Special Chamber 7-13</b> <b>AM Meter 7-13</b> <b>AWW Wet Well 7-14</b> <b>AJB Junction Box 7-14</b>	<b>A ACCESS POINT 7-13</b> <b>ACO Clean Out 7-14</b> ACOM -Mainline 7-14 ACOP -Property 7-14 ACOH -House 7-14	<b>A ACCESS POINT 7-13</b> <b>ACB Catch Basin 7-14</b> <b>AEP End of Pipe 7-14</b>

## Section 8—Miscellaneous Features Coding (Module 6D)

<b>M MISCELLANEOUS FEATURES 8-1</b> MCU Camera Underwater 8-1 MGO General Observation 8-1 MGP General Photograph 8-1 MSC Shape/Size Change 8-1 (Sewer Dimension/Vertical/ Horizontal) MJL Joint Length Change 8-1	<b>M MISCELLANEOUS FEATURES 8-1</b> MLC Lining Change 8-2 MMC Material Change 8-2 MSA Survey Abandoned 8-2 MWL Water Level 8-2 MWLS -Sag 8-2	<b>M MISCELLANEOUS FEATURES 8-1</b> MWM Water Mark 8-2 MY Dye Test 8-2 MYV -Dye Visible 8-3 MYN -Not Visible 8-3
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Updated November 2010